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# BLUE JAY

September 1988





The Blue Jay, founded in 1942 by Isabel M. Priestly, is a journal of natural history and conservation for Saskatchewan and adjacent regions. It is published quarterly by the Saskatchewan Natural History Society, Box 4348, Regina, Saskatchewan. S4P 3W6. CN ISSN 0006-5099.

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FURTHER TO AUTHOR’S GUIDELINES

It has been brought to the editor’s attention that completely discouraging the use of “I” and “we” often leads to the use of the passive tense (e.g. birds were seen . . . ) rather than the normally used active tense (I saw birds . . . ). The use of this tense is discouraged by style manuals, since it frequently results in confusing or ambiguous sentences; the reader may misunderstand “Surveys were conducted . . . ” by the author, or someone else. The use of the first person pronouns is not forbidden, but their overuse will be edited out.

Further to the use of computer diskettes for submitting manuscripts, text in the following formats will be accessible from IBM compatible diskettes ASCII, Wordstar US or UK, Multimate, MS-Word, Writer, Wordperfect, XyWrite and DCA. Line art can be used from Gem, AutoCad SLD, Lotus PIC, Mentor Gr, VideoShow, MAC PICT, CGM, PostScript and HPGL. Images can be taken from GEM/HALO DPE, PC-Paintbrush and MAC Paint.

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# THE CALLIN SERIES

DALE HJERTAAS, 15 Olson Place, Regina, Saskatchewan. S4S 2J6

The SNHS will soon launch a new series of special publications, to be called the Callin Series, in honour of Manley Callin, long-time Society member whose bequest stimulated and made it possible.<sup>1</sup> Designed to fill in gaps in our knowledge of bird abundance and distribution, it will culminate in *The Birds of Saskatchewan*, which will provide a definitive picture of bird distribution across the province.

Manley was well known for his articles on birds and especially for his *Birds of the Qu'Appelle*, 1857-1979, certainly one of the best regional annotated bird checklists published.<sup>2</sup> His will left the residue of his estate to the SNHS to be used for "a new checklist of Saskatchewan birds and works related thereto." In his usual modest way, Manley had never discussed the intended bequest with the Society executive and the final sum, exceeding \$100,000, was an unexpected and very substantial boost to the Society's programs.

The Society has placed the entire sum in the Manley Callin Bequest Fund. All monies are invested and the estimated annual revenue of \$12,500 will be used to support gradual publication of The Callin Series. If work comes in on budget and on

schedule, in 1995 when *The Birds of Saskatchewan* is completed the SNHS should still have continuing income from the fund to support further publications or other Society initiatives.

As has been true of all SNHS special publications, The Callin Series will be written by SNHS members who receive no remuneration for their efforts. Mary Gil- liland, the Society's Director of Special Publications, will oversee and edit the entire series.

The authors of these regional lists welcome additional information from other birders' files and notebooks. C. Stuart Houston, senior author and coordinator of *The birds of Saskatchewan*, will also be happy to receive information on bird populations from parts of the province where few data have been collected. Beginning in 1988 through its Project Birdwatch, the Society has offered to reimburse some expenses of members who wish to bird- watch in these lesser-travelled areas and submit their findings to SNHS.

Manley Callin's passion was birds. He approached birding in a careful, organised way, keeping the meticulous lists which

The new series will consist of eight titles. They and their authors are as follows:

1989	Birds of Last Mountain Lake.	B.C. DALE
1989	Saskatchewan Birds: a geographical perspective.	A.R. SMITH
1990	Birds of Eastern Saskatchewan: Hudson Bay to Greenwater Provincial Park.	D.F. HOOPER
1991	Birds of Saskatoon.	J.B. GOLLOP
1991	Birds of Yorkton	C.S. HOUSTON
1994	Birds of Cypress Hills	M.A. GOLLOP
1994	Birds of Moose Jaw	LEITH KNIGHT
1995	Birds of Saskatchewan	C.S. HOUSTON, <i>et al.</i>



eventually allowed him to produce *Birds of the Qu'Appelle*. Manley clearly wished his life's work documenting bird abundance and distribution to be carried on. His generous contribution to the Society ensures that that work will continue, in a fashion of which Manley would surely approve.

<sup>1</sup> BRAZIER, FRANK 1986. In memoriam — Eric Manley Callin (1911-1985). *Blue Jay* 42:66-69.

<sup>2</sup> CALLIN, E. MANLEY 1980. Birds of the Qu'Appelle, 1857-1979. *Sask. Nat. History Soc. Special Publ.* 13.



*Sharp-tailed Grouse, Saskatchewan's provincial bird.*

*G.W. Beyersbergen*



# AUGUST JULIUS BREITUNG, 1913-1987, NOTED SASKATCHEWAN AMATEUR BOTANIST

VERNON L. HARMS, The W.P. Fraser Herbarium and Biology Department, University of Saskatchewan, Saskatoon, Saskatchewan. S7N 0W0

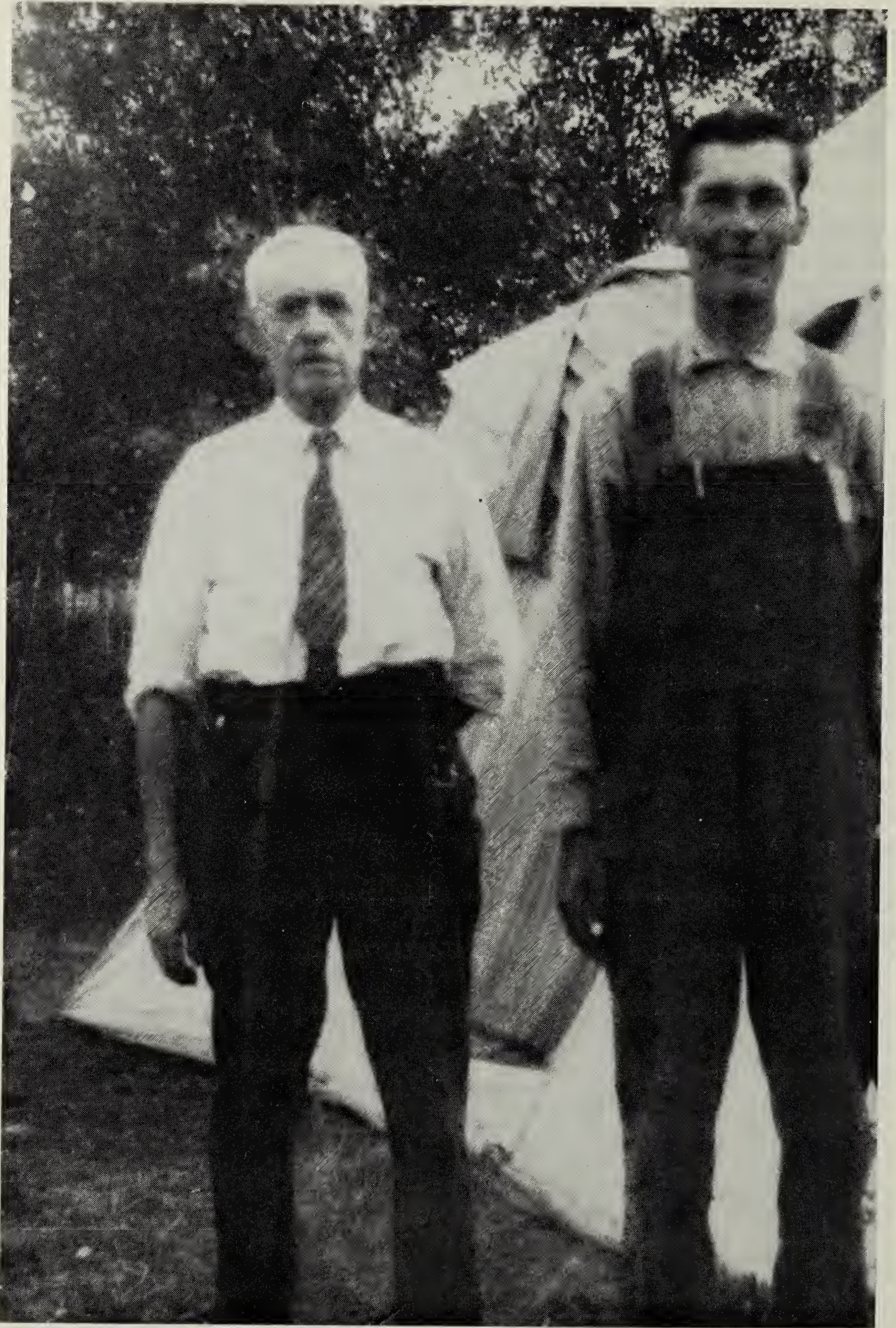
August Julius Breitung is probably best known for his contributions to Saskatchewan and Alberta floristics, although he lived the last half of his adult life in balmy California. Probably his most notable botanical legacy was the "Annotated Catalogue of the Vascular Flora of Saskatchewan," a remarkably complete and detailed list of the provincial flora which even yet has not been superseded. Equally thorough were his annotated catalogues of the plants of central-eastern Saskatchewan, of the Cypress Hills, and of Waterton Lakes National Park. In addition, he wrote 22 shorter articles on various plant groups including the native roses of Canada, the willows of Saskatchewan, the buttercups of Saskatchewan, the genus *Rubus* in the Ottawa Valley, the native and cultivated Agaves of southwestern United States, and more recently *Aster conspicuus* in Western North America. He collected numerous plant specimens, most of these from Saskatchewan, totaling nearly 20,000 numbers, and over 50,000 duplicates, which have been widely distributed to North American herbaria.

In his botanical career, August Breitung was responsible for formally publishing one new taxonomic variety, 10 new forms and 27 new name combinations. At least the following two new species were named in his honour: *Antennaria breitungii* A.E. Porsild and *Thalictrum breitungii* B. Boivin, as was also the genus *Breitungia* Love & Love, for a recent segregant of the Stonecrop genus, *Sedum*.

Lacking a formal university education or even a completed high school diploma, August Breitung exemplifies the "self-taught taxonomic botanist." He was also the consummate "amateur botanist," since his botanical efforts and floristic contributions were mostly unremunerated, and he never was offered truly professional-level employment as a taxonomic botanist. His comprehensive knowledge of native plants and the significance of his taxonomic contributions belie the distinctions too often made between "amateur" and "professional" botanists. Throughout his lifetime, August was undoubtedly often frustrated as a taxonomic botanist by the denial to him of permanent professional employment because of his lack of formal botanical training.

August J. Breitung was born in Muenster, Saskatchewan, on 9 May 1913, the son of Heronimus and Veronica (Fuller) Breitung, recent immigrants from Germany. In 1924 when August was 11 the Breitung family, including his two brothers and one sister, moved to a farm near Wallwort P.O., in the McKague area, about 20 miles south of Tisdale, Saskatchewan. August's early and consuming interest in nature was apparently much influenced by a Wallwort-area neighbor and local naturalist, John (Jack) D. Ritchie. His early fascination with plants is illustrated by an anecdote from his boyhood, recounting that once, when August was sent to bring home the cows, he returned with a handful of "posies" but no cows!





*August J. Breitung (age 24, on right) with W.P. Fraser (on left) at campgrounds in Tisdale, Saskatchewan 21 July 1937*  
G.F. Ledingham



The Breitung family had to work hard to scratch a living from the stony bushland upon which they had settled. To attend high school at Tisdale for three years, August had to work as a farm laborer for his board and room.

During these years he collected flowers and leaves to press and wrote to W.P. Fraser, a botanist at the University of Saskatchewan in Saskatoon, for help in identifying them. From the latter he received instructions for collecting and pressing plant specimens, help with plant determinations, an introduction to the available flora manuals, and apparently much encouragement and inspiration, for August later credited Fraser with largely influencing his "destiny in botany."

For the next decade or so after leaving high school (i.e. 1931- 1943), August continued to work, mostly on the family farm, but his most consuming interest was botany, which he pursued with the greatest enthusiasm. Not only was he a "voracious plant collector" (his own terminology), but he painstakingly identified and studied all the plants that he encountered, never fearing to tackle even the taxonomically more difficult groups. He sent numerous specimens to Fraser for verification and subsequently, probably at Fraser's suggestion, to other botanists. Thus he began a correspondence with various Saskatchewan, Canadian and American botanists, requesting and exchanging information. By the 1940s August had enlarged his botanical pen circle to include many of the more eminent plant systematists of the day. Aided by suggestions and information from his many correspondents, plus his own reading and persistent efforts, he trained himself to become a knowledgeable and capable taxonomic botanist.

Most of Breitung's numerous earlier Saskatchewan plant collections were from the Wallwort-McKague-Dalton area, although many were also from elsewhere

in the central-eastern Saskatchewan region, including Bjorkdale, Nipawin, Runciman, Tisdale, and eastward along the C.N.R. tracks to Hudson Bay Junction. He apparently used a bicycle for even his major botanical collecting forays, difficult though it would seem for him to have carried the necessary plant presses and other collecting paraphernalia. On his longer trips August would collect plants at one location, dry them there, and then send them home by post or express, before moving on to the next location. During this decade of his life, he made about 10,000 plant collections from east-central Saskatchewan, with duplicates perhaps totalling over 35,000 herbarium specimens.

In the late 1930s Breitung offered to exchange sets of his central-eastern Saskatchewan collections with Harold Senn, Curator of the Canada Department of Agriculture Herbarium (DAO), Dr. A. Erling Porsild, Curator of Botany at the National Museum of Canada (CAN), and various other large herbaria in Canada and the United States, as well as with Dr. Eric Hult n in Stockholm, Sweden.

Porsild hired Breitung as an assistant to accompany him and Dr. Austin L. Rand, an ornithologist, on a Canol Road collecting expedition in the Yukon Territory during the summer of 1944, and engaged him again as his assistant on botanical surveys in Banff and Jasper National Parks in the summers of 1945 and 1946. These botanical expeditions with the National Museum of Canada represented high-points of August's life to that time, and reportedly he was a most enthusiastic and prolific collector who quite impressed Porsild. Dr. Bernard Boivin, who accompanied them on the expedition to Banff in 1946 related that in the evenings while Porsild was organizing his notes and pressing specimens, August would often disappear and presently return to camp with great armloads of additional specimens. Boivin, over 30 years later in conversation with this biographer, paid August a high com-



pliment with the simple statement, "Breitung knew his plants."

In November 1946 August Breitung was hired as an assistant technician at the Herbarium of the Division of Botany and Plant Pathology, Canada Department of Agriculture in Ottawa. He finally had a salaried job in the field of his greatest interest, taxonomic botany, with a large herbarium and a taxonomic library available for use and he began his new job with much ambition and a flourish of activity. Within weeks of beginning his new job, he was offering to determine sets of specimens for various collectors over the country, checking herbarium specimen series for others, working up his own collections, requesting loans of specimens from other institutions for his own study, studying and annotating herbarium specimens of various plant groups and researching his own revisionary efforts. Because Breitung had been hired as only an assistant technician, and not as a taxonomic research botanist, most of the foregoing "professional" activities had to be carried on by him in addition to the regular, more routine duties of his actual job, such as specimen processing, sorting and filing.

Breitung had his personal herbarium from McKague transferred to the Herbarium of the Canada Department of Agriculture in Ottawa, so the latter institution now houses the only full set of his early Saskatchewan collections and many duplicates of these, as well as his Ottawa-period collections.

Breitung spent most of the 1947 summer in the Cypress Hills area where he amassed about 1500 collection numbers plus duplicates, and made a quite thorough inventory of the Cypress Hills flora, forming the basis for his eventual publication, "A Botanical Survey of the Cypress Hills." Apparently his productive summer's work was not looked on with complete favour by his Ottawa supervisors who had expected him to be work-

ing instead under the supervision of range ecologists at the Swift Current Canada Agriculture Station in pasture surveys. A fire at the end of summer that destroyed his tent and equipment hardly placated the misunderstanding!

During his years in Ottawa Breitung discovered that the Ottawa River valley contained a wealth of plants new to him, and he proceeded to collect enthusiastically. In Ottawa he met, and on 4 May 1949 married, Mathilde Presch. She encouraged him to take some night classes at Carleton University to improve his writing skills, and to write papers on his botanical research for publication. August remained with the Canada Department of Agriculture in Ottawa from 1946 to late 1952.

After his Ottawa job ended the Breitungs moved to Glendale, California in the Los Angeles area where Mathilde's family lived. August devoted the following summer (1953) to his botanical pursuits, without any financial support, collecting plants from southern California northward through Nevada, Utah, Idaho, and Montana, to the Canadian Rockies. During July and August of that year he undertook a comprehensive survey of Waterton Lakes National Park, securing over 2000 collection numbers plus duplicates, which formed the basis for his 1957 publication "Plants of Waterton Lakes National Park, Alberta." Breitung may be credited for first making known the great botanical wealth of Waterton Lakes.

During his early years in California, August compiled the information and wrote the text for the "Annotated Catalogue of the Vascular Flora of Saskatchewan," which was published in 1957, probably his most important contribution to Saskatchewan floristics. Indicative of its significance is the fact that H.J. Scoggan, in his 4-volume *The Flora of Canada* (National Museums of Canada, 1978-1979), cited Breitung's 1957 catalogue of



Saskatchewan plants nearly 500 times with regard to plant distributions in this province. By the later 1940s or early 1950s August Breitung was probably the most knowledgeable authority on the native flora of Saskatchewan.

In California, after taking a technical course, Breitung worked as an engineering draftsman in the aerospace industry for about 25 years. His spare-time botanical activities were not abandoned, but turned to plants closer at hand. His interest in the Agaves of the southwestern United States led to the publication of a monograph on the group in the 1968 *Yearbook of the Cactus and Succulent Journal*. He also took up wood-working and turned out hundreds of beautiful, high quality wood pieces on his lathe. His printing of the scientific name of the wood species on the bottom of most items was a unique feature.

The final five years of Breitung's life, during his retirement, showed a strong resurgence of his earlier interest in the flora of Canada and especially of his native Saskatchewan. He again established an extensive correspondence with various Saskatchewan botanists and naturalists and numerous North American systematic botanists. Since 1982, this biographer personally received a steady stream of interesting and informative letters from August, filled with taxonomic comments, tentative treatments, questions and requests for information, often concerning his own earlier collections. With a surge of ambition, he attempted to catch up on, personally evaluate and discuss with his respondents, the plant taxonomic changes published since the mid-1950s.

The death of his wife Mathilde on 20 February 1984 left August a lonely man but his keen interest in the flora of Saskatchewan and Western Canada continued until the day he died. Increasingly he tend-

ed to pose plant taxonomic or distributional questions that he hoped others, rather than himself, would be able to research. Although a retiree of hardly more than modest means, August also began giving a series of small donations to the University of Saskatchewan, designated to aid field studies and collecting for taxonomic research on the Saskatchewan native flora.

On 9 April 1987 August suffered a serious heart attack and his recovery was interrupted by several subsequent relapses, and associated health problems. His final attack occurred on 27 September 1987 during midmorning of a busy day for him of a sale at his home featuring his many beautiful woodworking articles.

With the passing of August Breitung we lost an enthusiastic naturalist and amateur botanist, who during his lifetime contributed significantly to Saskatchewan and Canadian floristics. But August Breitung's contributions to Saskatchewan and western Canadian taxonomic botany will continue beyond his death because he willed the proceeds of his estate to the W.P. Fraser Herbarium of the University of Saskatchewan, to be set up as the August J. Breitung and Mathilde K. Breitung Memorial Trust Fund, to be used for the support of taxonomic research on the native flora of Saskatchewan.

### Acknowledgements

The author wishes to thank William J. Cody and Donald F. Hooper for their kind cooperation in providing much information and access to information from their correspondence files, the former for also making available the correspondence files of August Breitung from when he was at Agriculture Canada in Ottawa, and Mrs. Joyce Dart, sister-in-law of August, for additional background information on his California years.





*August J. Breitung (age 73) in Lakewood, California, photo-portrait 23 November 1986.*



## **Publications of August J. Breitung**

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- 1951a. The passing of the buffalo. *The Blue Jay* 9(2):16.
- 1951b. Carnivorous plants. *The Blue Jay* 9(3):20.
- 1951c. The Alaska Birch. *The Blue Jay* 9(3):20.
- 1951d. Willows of Saskatchewan. *The Blue Jay* 9(4):24.
- 1952a. Additions to the plants of Saskatchewan. *The Blue Jay* 10(1):20.
- 1952b. Poplars of Canada. *The Blue Jay* 10(2):20-23.
- 1952c. Violets of Saskatchewan. *The Blue Jay* 10(3):16.
- 1952d. An additional Saskatchewan violet. *The Blue Jay* 10(4):23.
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- 1952f. Common Reed-grass. *The Blue Jay* 10(4):25.
- 1952g. Key to the genus *Rubus* in the Ottawa valley. *Can. Field Nat.* 66:108-110.
- 1952h. How plants are named. *Le Naturaliste Canadien* 79(1):5-10.
- 1952i. Native roses of Canada. *Le Naturaliste Canadien* 79(5):184-188.
- 1953a. Buttercups of Saskatchewan. *The Blue Jay* 11(1):20-22.
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1983. A letter: botanizing from afar. *The Blue Jay* 41(1):63.
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# NATURAL HISTORY IN CROPS

JIM A. WEDGWOOD, 610 Leslie Avenue, Saskatoon, Saskatchewan. S7H 2Z2

Assessing an insured crop for hail damage requires adjuster and farmer to walk into the field and examine the loss in detail. At such times, natural history scenes occasionally present themselves. Here are some observed while I was crop insurance adjusting from 1982 to 1988.

**Baird's Sparrows** were heard in three scattered fields of wheat near Biggar on 11 July 1986. In the first instance along a back road, the pleasant, distinctive trills came from crop on one side and rank, ungrazed prairie on the other. The second and third fields were each encircled by other crops. Around Biggar this sparrow is sometimes found in patches of long grass still present on the Bear Hills' steep or stony slopes. Thus, an overflow of the birds into the crops might occur.

In 1987 the Baird's delightful tinkling again emanated from standing wheat, this time near Zealandia on 8 July, Plato and Kerrobert on the 23rd and Naicam on the 29th, almost at the limit of the species range. They were also present in a field of rye.

The seven fields of standing spring wheat were 5% of 111 adjusted in the sparrow's range during July in 1983, 1984, 1986 and 1987. The area encompassing them angled across the province, and was delineated by the towns of Redvers, Radville, Luseland, Domremy and Naicam.

Almost all the crops would have been treated with one or more herbicides at some stage and, although a few weeds were present, all occupied fields were rated "clean" (it is now uncommon to meet a farmer who is not using herbicides).

Had breeding really occurred and, if so, was the fledging rate adequate? Alternatively, these occasions could have been displacement or post-breeding singing. Three factors aroused my suspicions: first, the late dates, although Baird's is reputedly a late nester; second, lack of thatch from the previous season — thatch, a necessity for hiding and nest building, is found naturally in long grass prairie; and third, a restricted protein base for feeding young, for indirectly some herbicides reduce the volumes of some insect species.

That these sparrows frequent wheat fields has long been known. Instances were reported by Shortt in Manitoba in 1937 and Salt in Alberta about 1965.<sup>4 6</sup> Here in Saskatchewan, Callin and Belcher heard them in crops, one near Moosomin in 1945, and the other south of Regina in 1960.<sup>3 2</sup> Twice, the birds were in weedy grain fields. Although Salt mentions occasional nesting in weedy grain fields in Alberta, he does not specifically state that nests were actually found in these fields; the nesting may have been inferred from the presence of singing males. Lane noted that nests were not reported from the other sites named.<sup>4</sup>

At the 1987 Workshop on Endangered Species in the Prairie Provinces, Baird's Sparrow was reported to be in cultivated fields in Saskatchewan. Again there was no mention of proven breeding success.<sup>7</sup> None too soon, the Workshop has recommended an assessment of the extent and reproductive effectiveness of the bird's use of non-native habitats.

We should have more than passing interest in this typical bird of our prairie lands. Once abundant, now rare, in my view it continues to decline. Baird's Spar-



row is one of only a few avian species for which Saskatchewan (along with North Dakota) is the historical heartland.

Other uncommon species of birds were also heard: **Le Conte's Sparrows** in barley near Bruno, **Sedge Wrens** in wheat east of Domremy, and **Sharp-tailed Sparrow** in barley at Spalding. Each field contained sloughs with grassy margins, usual habitat for the three. The cropped areas, then, may have been merely extensions of their basic territories.

**Common Yellowthroats** and **Water Pipits** were unexpected frequenters of farm lands, one of standing crops, the other of swathed fields. Several **Bobolinks** occupied a field of canola (rapeseed) near the town of Quill Lake in July.

About 50 yards into a lentil field we

flushed a dark, meadowlark-sized bird. Legs dangling, it flew about 15 yards, then dropped among the plants. "What is that? My neighbors and I have seen them in the lentils back at the home place. We don't know what they are. It's not a blackbird." Surprising were both the sight of a **Sora** and the farmer's remark, which indicated Soras had been seen in several lentil fields. It was 22 August in the Elrose district and there were no sloughs nearby. We could not flush the bird again. Lentils are low plants and these averaged about 14 in. (35 cm), yet were high enough to hide the reluctant flyer. Soras become less secretive after the breeding season, and are sometimes seen away from their marshy haunts. Still, a lentil field seemed to be unusual habitat.

Among available references only an old Audubon Guide mentioned this species



*Sedge Wren*

*F.W. Lahrman*



in crops: "... in fall the birds become seedeaters ... inland they visit corn and grain stubble fields ..."<sup>5</sup> Unknown is the extent to which Soras use lentils, a new minor crop in Saskatchewan.

In 1987 four lentil fields south of Forgan revealed a profusion of **Pronghorn** (Antelope) tracks. One farmer remarked that incursions by these animals had been increasing, and browsing of lentils was becoming a serious depredation problem for him and his neighbors. These plants appeared to be supplanting some of the forbs that usually make up two-thirds of the Pronghorn's diet.<sup>1</sup>

Walking through a good stand of waist-high, tough-stemmed, densely-planted canola is most difficult and one is soon exhausted. After struggling single file 5 yards into a canola crop, we came upon a trail. Wider than our path, it angled a quarter of a mile across the field. The fresh tracks were those of **Moose**. And this was only 25 mi. (40 km) from North Battleford. The farmer had seen three of these animals in the bush beside the field when he was seeding, and later he had spotted a single moose nearby. One had to be impressed by the obvious great strength and stamina of the beast in plowing through the jungle of stems.

Finally, some observations on the aspect of natural history that brought me into these fields, hail. If the hail stones were unusually large or oddly shaped, often someone would put a sample in the freezer. They were promptly displayed upon the insurance adjuster's arrival. Twice stones formed like tambourines were exhibited: disc-shaped, with thick rings and thin centres. On a Weyburn area farm this pattern had developed further, resulting in perfect doughnuts of ice with holes clear through. A few were large, about 1.25 in. (30 mm) across. As they were collected following the storm, they likely melted somewhat before reaching the freezer. In mint condition they would

have been veritable missiles.

Wicked-looking stones fell near Kipling: 0.75 in. (19 mm) across, round, but with jagged protuberances, like an ancient war club's spiked head. Teardrop-shaped hail at an Esterhazy farm and dumbbell stones — fused pairs — near Stewart Valley were also observed. Reported by farmers, but not seen by me, from the Arelee area were cigar-shaped stones about 2 in. long and near Biggar, tambourine-like pieces studded around the rims. What atmospheric conditions could have created these peculiar, uncommon, larger than usual hail stones?

Prairie croplands have been termed a biological desert. Seen from the roadside, a field may seem lifeless. Yet, as with a true desert, when one walks into it, nature may be found.

<sup>1</sup> BANFIELD, A.W.F. 1974. The mammals of Canada. Univ. of Toronto Press, Toronto.

<sup>2</sup> BELCHER, MARGARET 1980. Birds of Regina. Sask. Natural Hist. Soc., Spec. Publ. No. 12

<sup>3</sup> CALLIN, E.M. 1980. Birds of the Qu'Appelle, 1857-1979. Sask. Natural Hist. Soc. Spec. Publ. No. 13.

<sup>4</sup> LANE, JOHN 1968. Baird's Sparrow *In* BENT, A.C., *Ed.* Life histories of North American cardinals, grosbeaks, buntings, towhees, finches, sparrows and allies. Vol. 2 Smithsonian — Instit., Wash.

<sup>5</sup> POUGH, R.H. 1953. Audubon guide. All the birds of Eastern and Central North America. Doubleday and Co. Garden City, N.Y.

<sup>6</sup> SALT, W.R. and J.R. SALT 1976. The birds of Alberta. Hurtig, Edmonton.

<sup>7</sup> WERSHLER, CLEVE 1987. Baird's Sparrow: summary of general discussion and recommendations. *In* HOLROYD, G.L. et al. Proceedings of the workshop on endangered species in the Prairie Provinces. Natural History Occasional Paper No. 9, Prov. Mus. of Alberta. Alberta Culture. p. 283-284



# SOME OBSERVATIONS OF DISEASES OCCURRING IN SASKATCHEWAN WILDLIFE

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Disease is one feature of the natural history of all wild animal species. The wildlife diagnostic service of the Department of Veterinary Pathology at the University of Saskatchewan receives and examines many wild animal species each year. For example, in 1987, approximately 650 wildlife specimens were examined. These come from government wildlife agencies, particularly Saskatchewan Parks, Recreation and Culture (SPRC), the Canadian Wildlife Service (CWS), the Department of Renewable Resources of the Northwest Territories, and from concerned individuals. These specimens provide a unique and important window on the occurrence and significance of animal diseases in nature in western and northern Canada. This article is written to share some observations about wildlife diseases in Saskatchewan with the Saskatchewan Natural History Society and other *Blue Jay* readers.

## **Salmonellosis in House Sparrows**

During the week before Christmas 1987, dead House Sparrows were noticed around bird feeders in the Town of Dundurn and in the Massey Place area of the City of Saskatoon. Lloyd and Margaret Mitchell and their neighbors in Dundurn became alarmed when sparrows continued to die, and they brought four specimens to the College. On the same day, Mary Obrodovich of Saskatoon brought in several specimens from her neighborhood in Saskatoon. All birds suffered from the same disease: infection with a genus of bacteria known as *Salmonella*. This disease is called "salmonellosis" and it occurs sporadically in House Sparrows and

other passerine birds congregated at feeders in winter. We have seen it in other years in Saskatoon and it has been reported elsewhere in Canada, the United States and Europe.<sup>1-3</sup> It is not clear from where the infection comes or why outbreaks occur. However, it is most likely that some individual birds carry the infection in a mild form and act as sources of infection for other birds. Outbreaks are usually reported in the winter months and factors such as crowding around feeders, cold weather and poor body condition probably combine to make birds more susceptible to infection. Outbreaks occur under these circumstances. In addition to House Sparrows, Cardinals, Tree Sparrows, White-throated Sparrows and Dark-eyed Juncos have been involved in winter feeder-associated outbreaks. We do not know how many birds died in the outbreaks at Dundurn and Saskatoon. Somewhere between 50 and 100 had died in the yards of three house lots in Dundurn up to the end of January 1988. Two to four sparrows died each week in the Obrodovich yard in Saskatoon from the week preceding Christmas to 13 February when they were last contacted.

## **Starving (?) Great Blue Herons**

In late August and September of 1987, we received a rather large number of young-of-the-year Great Blue Herons that were either found dead or so weak and emaciated that they died shortly after capture. Eight such herons were received and examined. All were emaciated and had digestive tracts that were empty except for numerous aquatic beetle remains in the





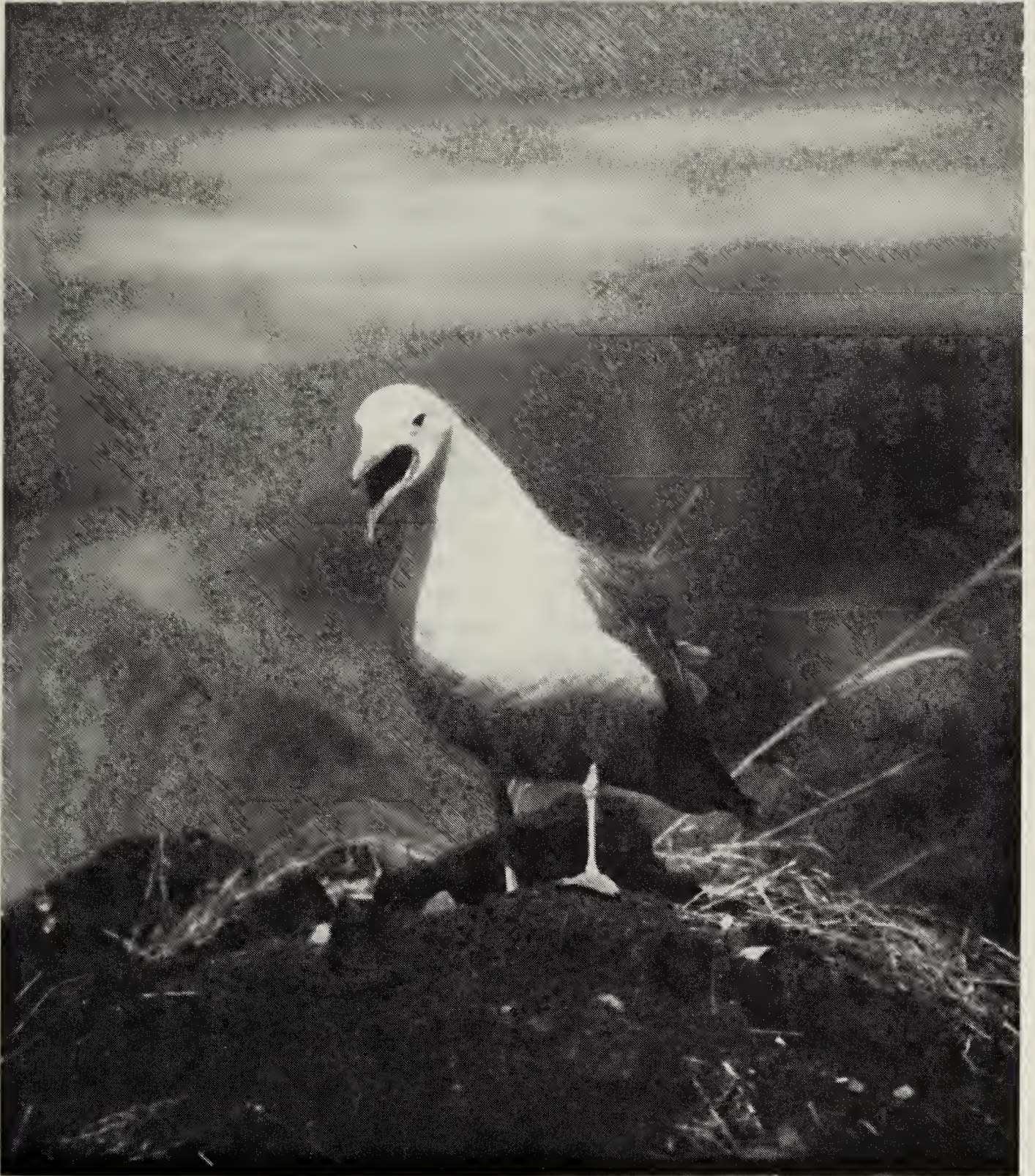
*Great Blue Heron at Waskesiu Lake*

*Juhachi Asai*

gizzards. There were no other signs of disease. In a few cases, tissue levels of mercury and lead were measured, but no toxic levels were found. In addition to these dead herons, the Wild Bird Ward of our

Veterinary Teaching Hospital received several weak and emaciated young herons that were revived with feeding and released. It was assumed that all these birds were individuals that have failed to learn





*California Gull*

*Ken Lumbis*

to forage for themselves and had starved after being abandoned by their parents at the end of the normal rearing season. The only evidence for this was apparent starvation in young of the year at a time that generally corresponded to the end of the rearing season. Young buteo hawks and owls appear in a similar condition in the early fall. Other possible explanations would be welcomed in correspondence on this matter.

### **Pesticide Poisoning in Herring and California Gulls**

Two die-offs of gulls due to pesticide poisoning occurred in the late spring and early summer of 1986. The first was in Prince Albert. On 12-14 May, gulls of both species were found in convulsions or dead at the municipal landfill and also were reported from urban locations. The estimated total mortality was 60 birds. Four birds were examined here, two of each



species, submitted by SPRC. All were adults in good body condition and there were no visible abnormalities. Poisoning was suspected and assistance sought with chemical analyses from the Animal Pathology Laboratory of Agriculture Canada in Saskatoon (the veterinary college does not have the necessary equipment or budget to perform these tests). The result was a diagnosis of poisoning by an organophosphate pesticide known by the trade name Dasanit and by the chemical name fensulfothion. It is used during seeding and is available only for use in commercial market gardens. The source of the chemical in this incident was not determined. The second poisoning incident occurred on the outskirts of Moose Jaw on 20 June. California Gulls were found in convulsions in a field that had been sprayed within the previous few hours with the carbamate pesticide Furadan (carbofuran) to combat grasshoppers. Estimated total mortality was 45 birds. SPRC submitted 5 gulls from this die-off for examination. All were in good body con-

dition and there were no visible abnormalities. All had gullets and stomachs filled with grasshoppers. Once again, Agriculture Canada confirmed toxic levels of carbofuran in the grasshoppers taken from the gullets of the dead birds.

Pesticide poisoning has been identified by this lab only once before in Saskatchewan, that case being a die-off of Lapland Longspurs that fed on carbofuran granules in a newly treated field in the spring of 1984. A possible case of poisoning of Cedar Waxwings with malathion is awaiting chemical analysis. It is not known whether these recognized incidents of wild bird mortality due to pesticides represent the "tip of the iceberg" or the "iceberg" itself. Most such mortality likely goes unrecognized and unrecorded.<sup>2</sup>

### **Sudden Death in Wild Geese During Fall Migration**

Each fall since 1983 there has been recognized a severe disease in wild geese at



Figure 1. 170 geese from Milden Lake, Saskatchewan that died of necrotizing enteritis in October 1987.



a few locations in Saskatchewan and Manitoba. The first occurrence was at Antelope Lake, near Cabri, Saskatchewan and killed an estimated 800 birds including Canada, Lesser Snow, White-fronted and Ross' geese. Other outbreaks occurred at Soda and Potts Lakes near Yorkton (at least 350 geese of four species) and at Whitewater Lake in sw Manitoba (number of dead not counted, probably over 1000, mostly Lesser Snow and Canada geese). On 5 October 1987, the lab received 16 dead Lesser Snow and White-fronted geese which SPRC personnel had found on Milden Lake near Dinsmore, Saskatchewan. On 7 October, the CWS did a complete pick-up of carcasses at this lake and submitted 170 geese to us for examination and disposal (Fig. 1). The disease also occurred for the second time on Antelope Lake in 1987 (120-150 dead geese counted on 19 October); one diseased goose was received from Galloway Bay on the South Saskatchewan River north of Antelope Lake. The disease that killed these geese is called "necrotizing enteritis" because it causes death of tissue (necrosis) in the intestines. It is not known what causes this disease, but it resembles very closely a disease in poultry and in domestic mammals caused by toxins produced by the bacterium *Clostridium perfringens* when this organism becomes over-abundant within the intestinal tract. In domestic animals, and also in humans, the disease usually occurs following some abrupt change in diet. We can suppose that wild geese arriving in Saskatchewan in the fall from the arctic sedge meadows, where they have spent the summer, do indeed experience a sudden change in diet as they begin to feed on cereal grains. However, the disease seems to occur at certain locations and not at others. The disease affects geese of all species that use the same body of water for roosting. Thus, the cause may be a complicated one involving several factors that act together to result in conditions that favour overgrowth of the toxin-producing bacterium.

This appears to be a new disease of wild geese that now occurs regularly and thus it merits serious investigation as to cause and possible control.<sup>4</sup>

These four examples of disease occurrences each involved a number of birds and each serves as an example of a different kind of disease. Most specimens received are individual animals found dead in the wild. Over time, these individual cases provide a great deal of information about diseases in wildlife. Most disease occurrences probably go undetected; they are either not recognized by people, or the dead and dying are quickly removed by scavengers and no evidence remains. For example, the first outbreak of necrotizing enteritis in geese on Antelope Lake was not recognized until February of the following year when personnel of Ducks Unlimited Canada visited the lake to place nesting structures for geese. At that time, they noted large numbers of dead geese frozen into the ice. Over 800 dead geese had been present on the lake since the previous November. All naturalists, be they amateur or professional, can play active roles in helping to detect wildlife diseases by bringing disease occurrences to the attention of local wildlife agencies or the University Department of Veterinary Pathology.

<sup>1</sup> FICHTEL, C.C. 1978. A *Salmonella* outbreak in wild songbirds. N. Am. Bird Bander 3:146-148.

<sup>2</sup> LEIGHTON, F.A., G.A. WOBESER and H.G. WHITNEY 1987. Cross-Canada Disease Report: Pesticide poisoning in gulls. Can. Vet. J. 28:108-109.

<sup>3</sup> WOBESER, G.A. and M.C. FINLAYSON 1969. *Salmonella typhimurium* infection in House Sparrows. Archives Environ. Health. 19:882-884.

<sup>4</sup> WOBESER, G.A. and D.J. RAINNIE 1987. Epizootic necrotic enteritis in wild geese. J. Wildl. Disease 23:376-385.



# PRAIRIE CONSERVATION AND ENDANGERED SPECIES WORKSHOP

Prairies that once teemed with diversity and abundance are now threatened with a spasm of extinctions unequalled in history. On 27, 28 and 29 January 1989 the Saskatchewan Natural History Society, together with the Canadian Plains Research Center will host a workshop on Prairie Conservation and Endangered Species. The 3-day workshop to be held at the Saskatchewan Museum of Natural History in Regina has the theme: Agriculture and Wildlife; Partners in Conservation.

The workshop will feature special discussions on the World Conservation Strategy, Soil and Water Conservation, Wildlife Tourism, Prairie Drought, North American Waterfowl Management Plan, Public Education and the implementation of the Prairie Conservation Action Plan, a project of World Wildlife Fund Canada. There will be presentations on the status of rare, threatened and endangered species in the prairie and aspen parkland ecoregions of Canada. There will also be working sessions on prairie shorebirds and the International Shorebird Reserves Program, and the conservation of grassland sparrows.

Workshop attendants will have the opportunity to participate in working sessions to discuss the status and conservation needs of at least 20 species and to search for socioeconomic solutions to the integration of economy and environment linkages. A poster session will also be held for anyone wishing to present information in this manner. Live endangered species will be on display, along with a host of other exhibits on prairie wildlife, habitat and conservation. The proceedings of the workshop are to be published.

For registration information contact **Prairie Conservation and Endangered Species Workshop, Saskatchewan Natural History Society, Box 4348, Regina, Saskatchewan, S4P 3W6**, or phone **Suzanne Henry** at **306-780-9273**. Persons wishing to contribute papers, posters or chair a session should contact **Geoff Holroyd, Canadian Wildlife Service, Room 210, 4999-98 Avenue, Edmonton, Alberta, T6B 2X3**, or phone **403-468-8922**.



*Swift Fox*

*Andrius Valadka*



# A CHECK-LIST OF THE MOTHS OF SASKATCHEWAN

## PART 3 - TIGER MOTHS (ARCTIIDAE) AND TUSSOCK MOTHS (LYMANTRIIDAE)

RONALD R. HOOPER, Box 757, Fort Qu'Appelle, Saskatchewan. S0G 1S0

In the following text these abbreviations are used: s south, n north, w west, e east, CNC the only Saskatchewan records of the species known to the author are in the Canadian National Collection in Ottawa.

### **Lattice Moths, Lichen Moths, Tiger Moths and Wasp Moths** (Arctiidae)

These moths are usually medium sized (25-60 mm) with fairly stout, smooth abdomens which in many cases are black, streaked, or spotted with black. The wings of many of the species are in contrasting colours of black and white, black and red, or black and orange. Very few are coloured a drab brown, but some are white. None of them have the orbicular or

reniform spots of the fore-wings nor the sub-marginal bands of the hind wings that are so prevalent in most of the Owlet Moths (Noctuidae). The caterpillars are very bristly. When they pupate they do not spin much silk, but make the cocoons of matted larval hair.

### Pericopin Moths - PERICOPINAE

These day-flying moths are black and white with black or bluish abdomens. The first abdominal segment has two rounded knobs on the upper side.

Green Lattice - *Gnophaela vermiculata* (Grt.)—n Saskatchewan, s to Punnichy and Saskatoon. Also in Cypress Hills.



*Green Lattice Moths*

K.N. Roney



Lichen Moths - LITHOSIINAE

These are fairly small moths with slender bodies and rather narrow forewings. Most of the caterpillars feed on lichens.

Yellow-edged Lexis - *Eilema bicolor* (Grt.)  
— throughout Saskatchewan.

Pearly-winged Lichen Moth - *Crambidia casta* (Pack.) — s Saskatchewan, n to Somme and Prince Albert.

Black and Yellow Lichen Moth - *Lycomorpha pholus miniata* Pack. — Shaunavon.

Scarlet-winged Lichen Moth - *Hypoprepia miniata* (Kby.) — s Saskatchewan n to Squaw Rapids and Meadow Lake Park.

Painted Lichen Moth - *Hypoprepia fucosa* Hbn. — Oxbow, Roche Percee, Tantalion and Fort Qu'Appelle.

Speckled Footman - *Clemensia albata* Pack. — Norquay, Cumberland House and Prince Albert.

Tiger Moths - ARCTIINAE

These are the true Tiger Moths for in some genera the forewings have pale "tiger-stripes," while the hind wings are orange or red with black spots. The bristly caterpillars of many of the species are general feeders on a great variety of plants.

Leconte's Haploa - *Haploa lecontei* (Guer.-Meneville) — s Saskatchewan n to Cumberland House and Nipawin Provincial Park.

Lyman's Haploa - *Haploa confusa* (Lyman) — e Saskatchewan, w to Killdeer and Smoothstone Lake area, n to Otter Rapids.

Orange Holomelina - *Holomelina aurantiaca* (Hbn.) — Katepwa, Fort Qu'Appelle, Punnichy, Somme, Mistatim and Rosefield (se of Val Marie).

Spotted Salmon Tiger - *Holomelina ferruginosa* Wlk. — throughout Saskatchewan.

Small Tiger Moth - *Parasemia plantaginis* (L.) — central Saskatchewan n to Sturgeon Landing, Lynx Lake and Beauval, s to Duck Mountain Park and Punnichy. Also in Cypress Hills.

Alberta Tiger Moth - *Dodia albertae* Dyar — Patterson Lake (ne corner of Saskatchewan) and Harlan (ne of Lloydminster).

Isabella Tiger Moth - *Pyrrharctia isabella* (J.E. Smith) — s Saskatchewan n to Erwood and Battlefords Park.

Acreea Moth - *Estigmene acreea* (Drury) — s Saskatchewan n to Cumberland House and Meadow Lake Park.

White-bodied Estigmene - *Spilosoma congrua* Wlk. — s Saskatchewan n to Sturgeon Landing and Battlefords Park.

Dubious Tiger Moth - *Spilosoma dubia* Wlk. — Dysart, Saskatoon, Cutknife and Harlan.

Virginian Tiger Moth - *Spilosoma virginica* (F.) — s Saskatchewan n to La Ronge.

Brown Tiger Moth - *Spilosoma pteridis* Hy. Edw. — Candle Lake.

Fall Webworm - *Hyphantria cunea* (Drury) — s Saskatchewan n to the Melfort area.

Ruby Tiger Moth - *Phragmatobia fuliginosa* (L.) — s Saskatchewan n to Snowden and w to Tuxford.

Large Ruby Tiger Moth - *Phragmatobia assimilians* Wlk. — s Saskatchewan n to Somme and Green Lake.

Saint Lawrence Tiger Moth - *Platarctia parthenos* (Harr.) - central Saskatchewan



n to La Ronge and Clearwater River,  
s to Bjorkdale. Also in Cypress Hills.

Great Tiger Moth - *Arctia caja* (L.) — cen-  
tral Saskatchewan n to Sturgeon Land-  
ing, s to Somme and Bjorkdale.

Turbans Tiger Moth - *Apantesis turbans*  
(Christoph) — s Saskatchewan n to  
Bjorkdale.

Little Virgin Moth - *Apantesis virguncula*  
(Kby.) — s Saskatchewan n to Cumber-  
land House, Love and Waskesiu.

Gibson's Tiger Moth - *Apantesis gibsoni*  
McD. — Regina, Killdeer and Val

Marie.

Blake's Tiger Moth - *Apantesis blakei* (Grt.)  
— Fort Qu'Appelle, Buffalo Pound  
Park and Fort Walsh.

William's Tiger Moth - *Apantesis william-  
sii* (Dodge) — s Saskatchewan n to  
Bainbridge (n of Hudson Bay), Jay Jay  
Lake (near Big Sandy L.) and Loon  
Lake.

Celia Tiger Moth - *Apantesis celia* (Saund.)  
— Cypress Hills Park (CNC).

Oithona Tiger Moth - *Apantesis oithona*  
(Stkr.) — Rutland (CNC).



Banded Woolly Bear, Isabella Tiger Moth larva

S. Brisson





*Acraea* Moth

F.W. Lahrman

Parthenice Tiger Moth - *Apantesis parthenice* (Kby.) — s Saskatchewan n to Cumberland House, Jay Jay Lake and Meadow Lake Park.

Delicate Tiger Moth - *Cynia tenera* Hbn. — Maryfield, Indian Head and Rosefield (se of Val Marie).

Virgin Tiger Moth - *Apantesis virgo* (L.) — s Saskatchewan n to Shoal Lake, Love and Loon Lake.

Oregon Euchaetas - *Cynia oregonensis* (Stretch) — s Saskatchewan n to Round Lake (S of Stockholm), Indian Head and Cutknife.

Doris Tiger Moth - *Apantesis doris* (Bdv.) — Estevan (CNC).

Wasp Moths - CTENUCHINAE

Banded Tussock Moth - *Lophocampa maculata* Harr. — s Saskatchewan n to Harriott Lake area and La Ronge area.

These day-flying moths superficially resemble wasps by having metallic-blue bodies and some species have semi-transparent hind wind wings.





*St. Lawrence Tiger Moth*

K.N. Roney

Virginian Ctenucha - *Ctenucha virginica* (Esp.) — e Saskatchewan w to Tantalion, Bjorkdale, Love, Montreal Lake and La Ronge.

Yellow-collared Scape Moth - *Cisseps fulvicollis* (Hbn.) — s Saskatchewan n to Otter Rapids.

Butler's Wasp Moth - *Antichloris viridis* Druce — Regina (accidental with bananas).

#### Expected Species

Many-spotted Tiger Moth - *Turuptiana permaculata* (Pack.) — n to Drumheller, Alberta.

Superb Tiger Moth - *Apantesis geneura* (Stkr.) — n to Aweme, Manitoba and the Calgary area of Alberta.

Lined Ruby Tiger Moth - *Phragmatobia lineata* New. & Don. — e North America w to Calgary, Alberta.





Rusty Tussock Moth larva

K.N. Roney

### **Tussock Moths** (Lymantriidae)

Medium-sized moths with hairy bodies and legs. The hind wings are almost as long as the forewings. The bristly caterpillars have long hair tufts at front and rear, giving the name "Tussock Moths."

#### **LIPARIDAE**

Dorsal-tufted Tussock Moth - *Dasychira dorsipennata* (B. & McD.) — Douglas Park.

Variable Tussock Moth - *Dasychira vagans* (B. & McD.) — s Saskatchewan n to Hamell Lake (w of Creighton) and La Ronge.

Pine Tussock Moth - *Dasychira plagiata* (Wlk.) — central Saskatchewan n to Jan Lake area, Smoothstone Lake area and Pierce Lake area, s to Moose Mountain area and Craven area.

Rusty Tussock Moth - *Orgyia antiqua* (L.) — s Saskatchewan n to La Ronge area and Patuanak area.

White-marked Tussock Moth - *Orgyia leucostigma* (J.E. Smith) — Balcarres area, Langham area and Stanley area.

<sup>1</sup> DONAHUE, J.P. and J.H. NEWMAN 1966. The genus *Phragmatobia* in North America, with the description of a new species. *The Michigan Entomologist*, 1(2).

<sup>2</sup> FERGUSON, D.C. 1953. On the identity and status of *Eubaphe lamae* Freeman. *Canadian Entomologist* 85:371-373.

<sup>3</sup> FERGUSON, D.C. 1978. In R.B. DOMINICK et al. Noctuoidea: Lymantriidae. The moths of America north of Mexico. fasc. 22.2. E.W. Classey Ltd., London.

<sup>4</sup> PRENTICE, R.M. 1962. Forest Lepidoptera of Canada recorded by the Forest Insect Survey. Volume 2 - Nycteolidae, Notodontidae, Noctuidae, Liparidae. Bull. 128, For. Entomology and Pathology Branch, Can. Dept. For.

<sup>5</sup> TSHISTJAKOV, Y.A. and J.D. LAFONTAINE 1984. A review of the genus *Dodia* Dyar, with description of a new species from Eastern Siberia and Northern Canada. *Can. Entomologist* 116:1549-1556.



# A RECORD EARLY SEASON FOR MARSH-BREEDING BIRDS IN SOUTHWESTERN MANITOBA

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The mild spring of 1987 produced many record early arrivals of migrant birds in prairie Canada.<sup>5</sup> Birds arriving early on the breeding grounds may have a head start on territory establishment and nest initiation. However, if weather conditions deteriorate, early arrival can also result in weather-related mortality risks, or it can force birds to use energy reserves that would normally be used to produce eggs.<sup>3 4</sup> Birds often respond to severe spring weather by reversing their migration direction, a seemingly wasteful expenditure of time and energy.<sup>7</sup> Therefore, most birds are faced with two conflicting

problems: they must arrive on the breeding grounds early in order to claim a territory and breed successfully, but they must not arrive on the breeding grounds so early that their lives are endangered by severe weather. During 1987, mild early spring weather was followed by amenable weather conditions during late spring, and early migrating birds in the Minnedosa, Manitoba, area responded with record early nest initiations.

Waterfowl biologists have been conducting nesting studies in the Minnedosa area since the 1940s, so there is a wealth



*Canvasback pair*

*F.W. Lahrman*



of data on nesting chronology for this area. From 1963 through 1972 Jerry Stoudt kept detailed field notes on the nesting chronology of Minnedosa's wetland birds.<sup>6</sup> Stoudt's research on Canvasback nesting ecology was continued by Jerry Serie and Michael Anderson, and is ongoing today. With Stoudt's data, up to 10 years of breeding phenology records are available for the Minnedosa area, and through Anderson's efforts, an additional 4 years of information on Canvasback and Redhead nest initiation dates are available.

The 1987 observations of 22 April for the first Canvasback egg and 27 April for the first Redhead egg represent the earliest *known* nest initiations by these two species during the last 25 years at Minnedosa. Of the 14 phenological events that were recorded in 1987, 11 events occurred earlier than the earliest observation

reported by Stoudt, 2 events occurred on the same date, and only one event (first Sora egg) occurred at a later date (see – Table 1). The observation of 15 May for the first Sora egg was tied with the second earliest date in Stoudt's 10-year study.

The data show that early arrival on the breeding grounds can lead to record early nest initiations. Early nest initiation can be important for breeding productivity because early hatching offspring can have a higher chance of surviving through the coming winter, and because early nesting birds can have more time to renest if their first nests are destroyed.<sup>1 2</sup>

We appreciate the help of Michael Anderson, Bob Emery, and the entire crew at the Minnedosa Substation of the Delta Waterfowl and Wetlands Research Station.



*Courting Redheads*

*F.W. Lahrman*



Table 1. MIGRATIONAL AND BREEDING PHENOLOGY OF MARSH-NESTING BIRDS AT MINNEDOSA, MANITOBA, 1987 AND 1963-72

Event	1987	Average 1963-72	Earliest (year) 1963-72
Heavy migration of ducks	15 April	01 May	20 April (1964)
First Mallard egg	15 April	25 April	20 April (1969)
First Canvasback egg	22 April	02 May	26 April (1971)
First American Coot egg	30 April	11 May	07 May (1971,72)
First Blue-winged Teal egg	06 May	15 May	11 May (1966,71)
First Redhead egg	27 April	13 May	29 April (1971)
First Yellow-headed Blackbird egg	10 May	17 May	10 May (1969)
First Black Tern arrival	11 May	18 May	14 May (1969)
First Red-winged Blackbird egg	10 May	21 May	14 May (1972)
First Sora egg	15 May	23 May	10 May (1969)
First Ruddy Duck egg	16 May	31 May	22 May (1963)
First American Coot hatching	26 May	10 June	06 June (1965)
First Killdeer young	08 June	16 June	08 June (1965)
First hen Canvasback flocking	08 June	24 June	12 June (1964)

<sup>1</sup> COOKE, F., C.S. FINDLAY and R.F. ROCKWELL 1984. Recruitment and the timing of reproduction in Lesser Snow Geese (*Chen caerulescens caerulescens*). *Auk* 101(3): 451-458.

<sup>2</sup> COWARDIN, L.M., D.S. GILMER and C.W. SHAIFFER 1985. Mallard recruitment in the agricultural environment of North Dakota. Wildl. Monograph No. 92.

<sup>3</sup> DAVIES, J.C. and F. COOKE 1983. Annual nesting productivity in Snow Geese: prairie droughts and arctic springs. *J. Wildl. Mgmt.* 47(2):291-296.

<sup>4</sup> FREDRICKSON, L.H. 1969. Mortality of coots during severe spring weather. *Wilson Bull.* 81(4):450-453.

<sup>5</sup> GOLLOP, J.B. 1987. The spring migration, March 1 - May 31, 1987. Prairie Provinces Region. *Am. Birds* 41(3):448-450.

<sup>6</sup> STOUT, J.H. 1982. Habitat use and productivity of Canvasbacks in southwestern Manitoba, 1961-72. U.S. Fish & Wild. Serv., Special Scientific Report — Wildl. No. 248.

<sup>7</sup> WEIR, R.D. 1987. The spring migration, March 1 - May 31, 1987. Ontario Region. *Am. Birds* 41(3):422-428.



Young Yellow-headed Blackbird  
Gary W. Seib



# WHOOPING CRANES IN 1987 — ANOTHER YEAR OF PROGRESS

ERNIE KUYT, Canadian Wildlife Service, Room 210, 4999 - 98 Avenue, Edmonton, Alberta. T6B 2X3

The 1980s have been the decade of truth for Whooping Cranes.

In 1980 and 1981 exceedingly dry conditions in Wood Buffalo National Park (WBNP) contributed greatly to grave forest fire risks. In contrast to 1980 when most serious forest fires in northern Alberta occurred in May, the most disastrous part of the 1981 fire season did not begin until early August.<sup>1</sup> Lightning-caused fires erupted on 14 August 1981 in the Whooping Crane summer range in WBNP. Sweeping through woodland,

brush and drying wetlands, the fires burned an estimated 70% of the cranes' breeding range. Canadian Wildlife Service (CWS) file reports covering the 1981 field season make frequent references to drying conditions of breeding habitat and concomitant losses of Whooping Crane chicks.

In early August 1981 only three chicks were alive but fortunately all of them survived the fires by taking shelter with their parents in the few wet areas that had remained unburned. The 1981 year class



*Whooping Crane*

*Lorne Scott*



was further reduced when two of their number died after collisions with power lines in Saskatchewan (October 1981) and Texas (October 1982).

After the low water level years of 1980 and 1981, water conditions in the Whooping Crane breeding range in WBNP improved, and these reversals in habitat conditions, combined with management techniques, most likely are responsible for the recent population increase (Fig. 1).

During the 1985-1987 field seasons increasing use was made of field tests to determine viability of eggs left in nests after the annual collection of surplus eggs. The data show that during this period, hatching success of eggs left in nests and tested as live increased by 15-19%. Undoubtedly production of juveniles during the past 3 years was also enhanced.

In 1987, CWS aerial surveys over the Whooping Crane breeding range accounted for 32 nests, all but 3 containing 2 eggs. This all-time record of nests included first-time nesting efforts by three newly formed pairs and two of these had only a single egg each. Each of these two pairs was made up of a colour-banded 3-year old male and an unbanded bird. One of the pairs failed to hatch its egg but the other pair's egg hatched and the chick is still alive. It is the first record of successful reproduction by a 3-year old male Whooping Crane. In 1986 a pair of 3 and 4-year old cranes produced two fertile eggs but sex of these birds is not known.

The third nest with only a single egg in 1987 is a story in itself. The nest was discovered near the Sass River, Northwest Territories (NWT) on 4 May 1987 and, although a crane was on the nest, there was no egg. On the next survey of 7 May a single egg was in the nest, somewhat surprising, as the clutch should have been completed by then. On 10 May the nest was empty although a crane had been on

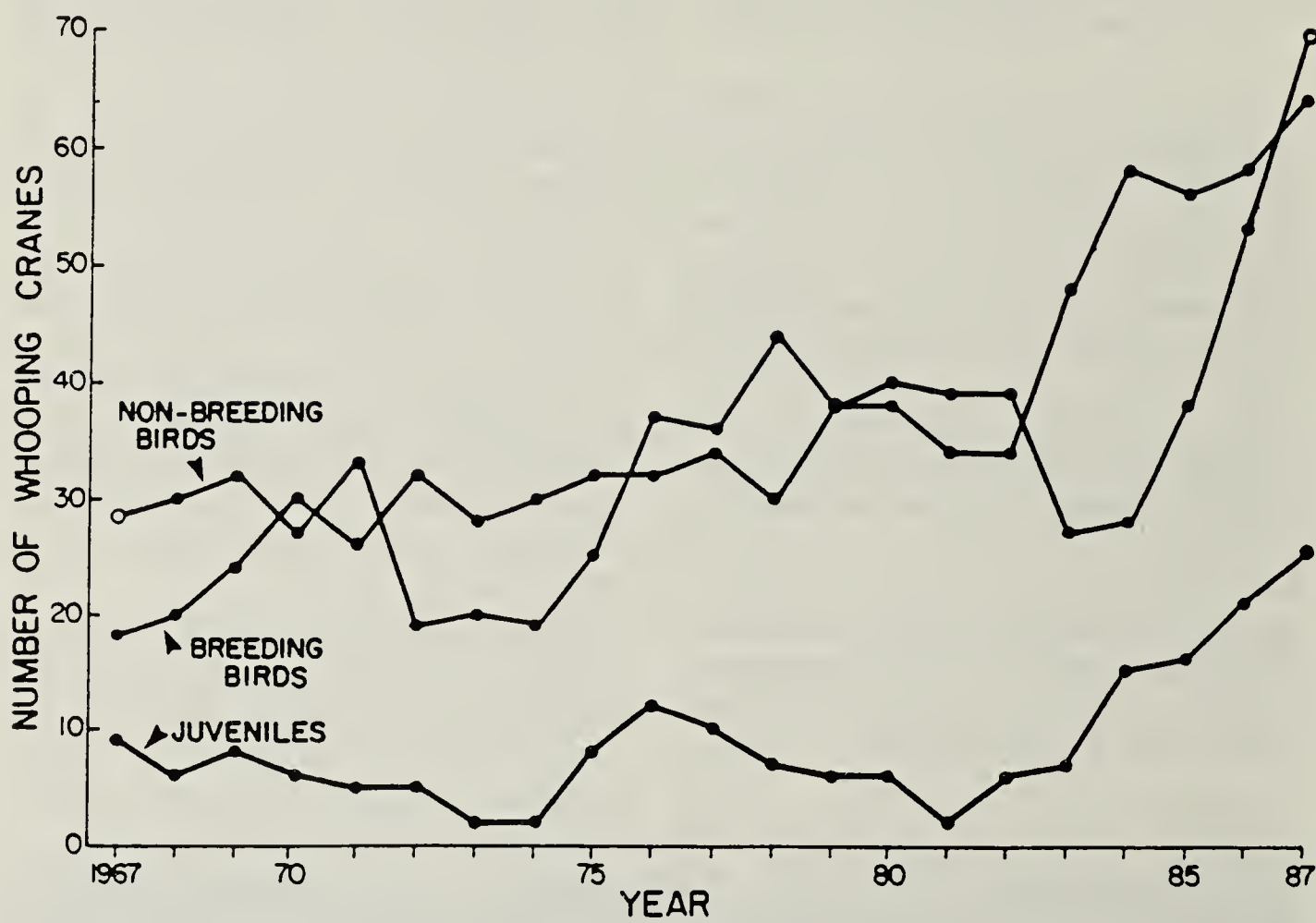
it. A crane was again seen on the nest in incubating position at the conclusion of the day's survey. The final survey on 18 May (before the 21 May collection of surplus eggs) again showed a crane on the nest and a second bird nearby. There was no egg in the nest. On 21 May a live surplus egg, collected 10 minutes earlier from a nearby nest, was placed in this nest. At the conclusion of the egg collection the bird was incubating the egg. This egg hatched and the chick, colour-banded on 6 August wintered on the Aransas National Wildlife Refuge (ANWR) in Texas together with its foster parents. Its sibling from the nearby nest wintered not far away with the two young birds' natural parents.

After the surplus egg pickup 34 eggs remained in 31 nests. Both eggs were left in three nests since two were late nests and the third was attended by skittish adults which were left undisturbed. On 17 and 20 June a total of 27 chicks was seen. Two eggs which failed to hatch were collected and several eggs or young chicks (including single chicks or eggs from two of the three two-egg clutches) had disappeared. By 8 August 26 chicks were still alive (including a single chick from the remaining two-egg nest) and of these, 21 were colour-banded. Four chicks remained unbanded and a fifth chick suffered a leg injury just before being captured and died, most likely as a result of the injury. It was only the second casualty possibly related to banding activities involving 118 bandings over the past 11 years.

All 25 chicks safely migrated to Texas although one of them apparently separated from its parents during migration. This banded chick was seen about 50 km southeast of Amarillo, Texas. Another bird, a colour-banded yearling, spent the winter about 80 km north of ANWR. Last winter the same bird spent its first winter with Sandhill Cranes in Oklahoma while its parents were on the Aransas refuge.



Figure 1. POPULATION GROWTH OF WOOD BUFFALO NATIONAL PARK WHOOPING CRANE FLOCK, 1967-1987.



That bird is a noted traveller and individualist as it managed to find its way back to WBNP where it was seen in May 1987. Surprisingly it then continued its northward flight and was reported and photographed near Yellowknife, NWT, by D.C. Heard of the NWT Fish and Wildlife Service. Could this be an example of pioneering effort in Whooping Cranes?

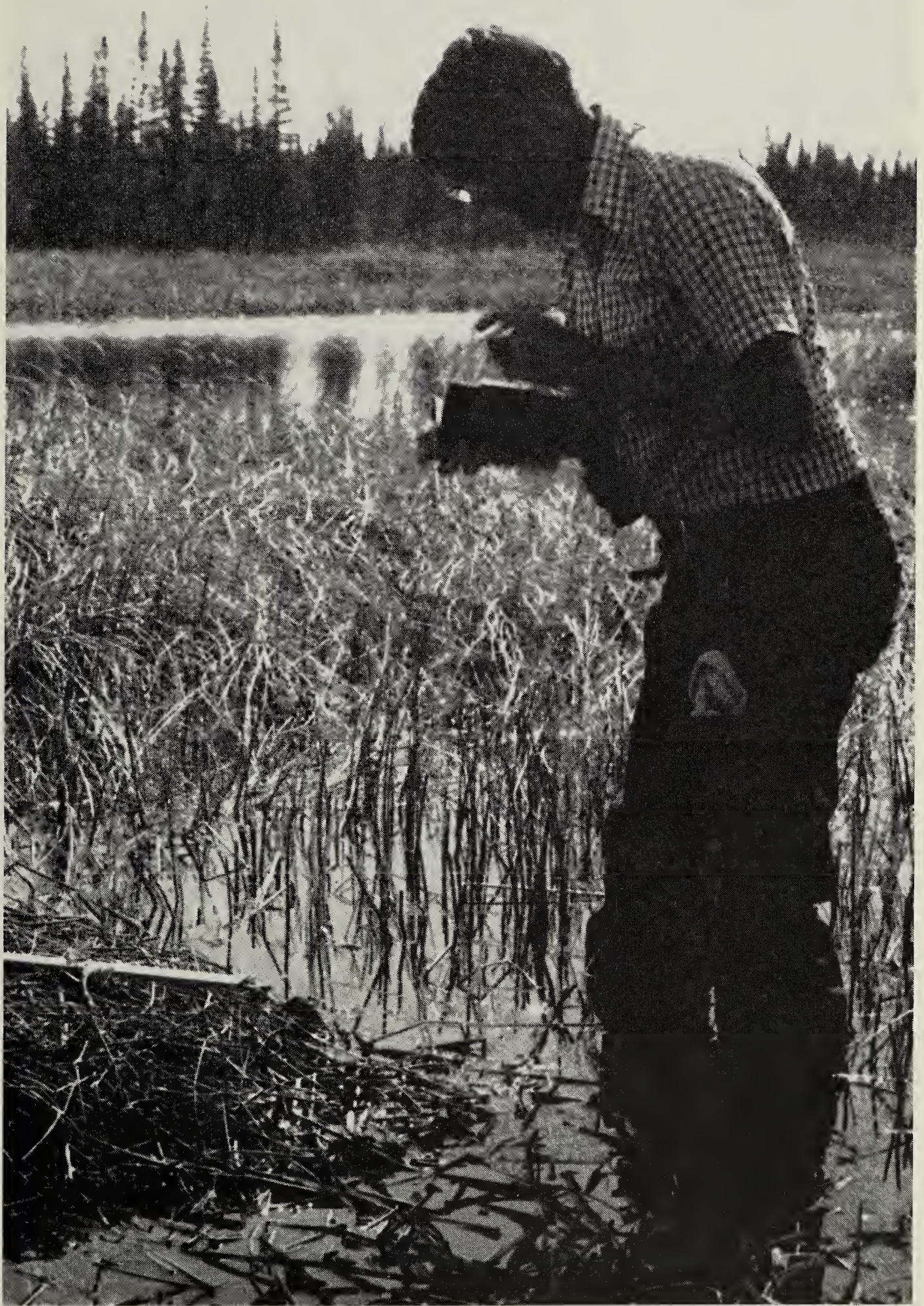
Annual population figures are always made available by the staff of ANWR and T. Stehn (pers. comm.) advised that 134 Whooping Cranes were accounted for in Texas by 10 December 1987. As 109 Whooping Cranes began the 1987 spring migration and 25 chicks returned south amongst the 134 birds, the happy news is that none of the 109 birds died during summer. According to Stehn, this is only the eighth time in the last 50 years that summer mortality has not occurred. Numbers of nonbreeding birds (including

juveniles), breeding birds and juveniles arriving at ANWR in fall during the past 20 years are shown in Fig. 1.

Egg collecting (which began in 1967) and viability testing, as well as the colour banding program initiated in 1977 are carried out with great care by highly experienced crews. In over 587 nest visitations there has not been an instance of nest abandonment by incubating Whooping Cranes. Staff of the United States Fish and Wildlife Service, WBNP and volunteers have provided significant support to CWS, and these cooperative field studies are continuing to be of the greatest importance to the conservation of Whooping Cranes.

<sup>1</sup> HARVEY, D.A., M.E. ALEXANDER and B. JANZ 1986. A comparison of fire-weather severity in Northern Alberta during the 1980 and 1981 fire seasons. *For. Chronicle* 62:507-513.





*Ernie Kuyt at Wood Buffalo National Park*

*Elwood Bizeau*



# FLEDGLING NORTHERN HAWK-OWL AT WEYAKWIN, SASKATCHEWAN

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In the area between Weyakwin town-site and Montreal Lake the forest cover near the road had been removed by fire. Jack Pine now grows on the high ground but the low, wet areas were either not burned or had not advanced in the regeneration process.

On the evening of 22 June 1987 an unusual sound was heard from the road. Presently an owl flew nearby and alighted on a dead snag. It was a Northern Hawk-Owl.

The owl flew off but soon reappeared carrying something in its beak. It landed

in a dead tree, uttered a rasping screech and a second owl appeared. They both made the screeching sounds, bobbed heads and exchanged the food. The recipient carried the prey in a flight path parallel to the roadway into a low, wet area where it was lost in the cover.

On 28 June Jonathan Matthews and the author searched the wet undulating area with a jumble of burned deadfall, live willows and tamarack where the owl had disappeared. After a half hour the owls were aroused and their reactions to our movements were used to aid in locating one of the young, which was photographed.



*Adult Northern Hawk-Owl*

*Ron Jensen*





*Young Northern Hawk Owl, Montreal L.*

*Ron Jensen*



# PILEATED WOODPECKERS NEST IN THE SASKATOON DISTRICT

JIM A. WEDGWOOD, 610 Leslie Avenue, Saskatoon, Saskatchewan. S7H 2Z2

Four of 12 observations of Pileated Woodpeckers in the Saskatoon district up to 1987 were in the breeding season. That year the area's first known nest was discovered. This event was unusual for locale and distance from known breeding sites to the north, as well as for rarity.

On 30 April a pair of these large woodpeckers was cavorting around a hole in

the east side of a big, old, fire-scarred snag. The site was on the south bank of the North Saskatchewan River north of Asquith. As the pair shimmied and hitched around the hole, sometimes touching bills in courtship display, their large erect crests flashed a brilliant red in the early morning sun. Spectacular!

Two days later the Wedgwoods were



Figure 1. *Pileated Woodpecker commencing regurgitation at nest hole.*

*Jim Slimmon*



unable to find the birds. Then on 17 May while we stood about 8 m from the snag, a Pileated glided by, landed beside a second hole and promptly entered.

Tapping the base of the stump failed to produce a Pileated on 21 May when the "Golden Eagles" (a group of senior citizens) visited the site, and failed again on the 23rd when a Mayday Bird Count team was there. Yet on the 31st the female showed herself. But patience had been essential. At least three minutes elapsed between tapping and appearance of the bird's head. In the evening of 10 June Bernie and Michael Gollop and I watched the birds change places at the nest. During incubation the male is reported to occupy the cavity at night.<sup>1</sup>

Between 8:00 and 8:30 a.m. on 13 June Jim Slimmon and I watched each woodpecker make a feeding trip. On 14 June the female made two feeding trips between 9:00 and 10:00 a.m. The bird would land beside the hole, hitch over to grasp its lower rim, commence regurgitative pumping, then disappear completely into the cavity. Slimmon took photographs, one of which caught regurgitation preliminaries when the bird's bill was slightly open. Whenever an adult was present, young called continuously. They could be heard clearly 12 m from the snag. The sounds issuing from the hole when a parent was inside suggested there were three nestlings. Finally we had proof of successful breeding.

The nest hole was about 4 m from the ground; 70 cm above that opening was another of the same size and shape. Courtship activity witnessed on the first visit had centered around this upper hole. Pileated Woodpeckers may often nest in the same stump for many years, with several old holes present, some occasionally being reused.<sup>1</sup> Such may have happened here, and our 1987 observation may not have been the first nesting of the species in the snag.

The encounter with the courting pair was totally unexpected. My previous nesting observations of this hard-to-find woodpecker had been in the forests near Waskesiu, Emma and Candle Lakes.<sup>4</sup> The new site, 47 km (29 mi.) northwest of Saskatoon, was 176 km (110 mi.) south of Emma Lake and represented a considerable southward extension of the breeding range depicted in *The birds of Canada*.<sup>5</sup>

This record is the third breeding reported south of the province's northern forests. The previous ones were in the west on Cranberry Island in the North Saskatchewan River near Big Gully Creek, and in the east in Good Spirit Lake Provincial Park (details given in table).

The site was in a narrow belt of riverine growth — anything but solid forest. At the nest stump, the vegetation measured only 100 m from river's edge to the adjoining cultivated field. Except at two coulee mouths, for a mile above and below the site, the belt was 25 m at the narrowest and a mere 150 m at the widest. The prominent trees, large black poplars and plains cottonwoods, were mostly scattered, with only a few in stands. Although aspen poplar and shrubs, including dense willow stands, were present, most of the vegetation was black birch. Many of the black poplars and cottonwoods were dead or dying and there was much deadfall, but where was there an adequate food resource for these big birds, two-thirds or more of whose intake is insects from diseased and decaying wood?

Short and Thomas gave the breeding area criteria as 60 acres of suitable habitat within a mile range or 300 acres of territory.<sup>1 2</sup> Two large islands supporting a heavy growth, including numerous large trees, were likely also used by our birds to meet the implied foraging needs.

Listed in Table 1 are all the Saskatchewan Pileated Woodpecker nest records known to me up to December 1987.



Table 1. PILEATED WOODPECKER NESTS REPORTED IN SASKATCHEWAN

Year*	Date	Location	Tree	Height	Comment	Observers	Source
?	?	Somme district	2 N			W.A. Black	a
1932		Green Lake	old Jack Pine (jP)			R.D. Symons	b
1939	26 June	n shore Emma Lake	live jP		1 + Y	F.M. Mowat	c
1942		Kazan Lake	large aspen (tA)			T.E. Randall	d e
1942	23 June	Niska Lake				T.E. Randall	e
1943	02 June	Nipawin, 0.5 mi. s hospital	dead poplar feet	20	3E	M.G. Street	f
1945	08 June	Nipawin, 150 yd from previous site	dead poplar stub	29		M.G. Street	f
1953		by golf course			3Y	J. Mayson	g
1956		Shirley Lake	hollow aspen			G.G. Anweiler	h
1961		Emma Lake	same tree as in 1961			D.W. Davis	i
1962		Emma Lake				D.W. Davis	i
1963	30 May	Big Sandy Lake			S	R. Carson,	
						SMNH	j
1965	12 June	Candle Lake, 1 mi. sw	live aspen	17	I	J.A. Slimmon &	h k
1965		Emma Lake, Birch Bay	dying White Spruce (wS)			SNHS	
1967	05 August	Squaw Rapids			3Y	J.A. Wedgwood	
1968	27 March	Nipawin, within 5 mi.	Balsam Poplar (bPo)	40	C	H. Wolowski	h
1968	28 April	Torch River, 25 mi. n of Nipawin	bPo	40	C D	S.D. Riome	h
1968	25 April	Good Spirit Lake near Highway 229	large live poplar	18	D	S.D. Riome	h
	?				2?Y	Joyce Gunn	d l
						Joyce Gunn	d l
1969	12 April	P.A.N.P., near maintenance compound				Don Dutcher	p
1970	06 June	Emma Lake, Birch Bay	same tree as in 1965?			R.E. Gehlert	d m
1970	14 June	MacDowall, sw13-46-1-W3	stub poplar	10	2Y	J.A. Slimmon	d m
1973		Dore Lake	dead stub bPo		2Y	A.J. Erskine	d n
1975	29 April	Candle Lake, s end	dead snag tA	11	C D	W.C. Harris	
1976	01 June	McBride Lake, s shore	dead snag wS	7	1 + Y	W.C. Harris	
1976	18 June	Dore Lake, Michel Point	dead wS	16	3 + Y	W.C. Harris	
1977	30 April	Green Lake, 14 mi. n of	dead snag tA	14	C D	W.C. Harris	
1977	30 May	Bainbridge (junction #109 & 163) 4 mi. w	dead stub bPo	6		W.C. Harris	



1977	02 June	Bainbridge (n Hudson Bay, SK), 1 mi. s	dead bPo	31	R	W.C. Harris
1977	18 June	McBride Lake, n side	dead birch (wB)	17	R Y	W.C. Harris
1978	16 June	Bainbridge, 9 mi. s	dead wB	8	R Y	W.C. Harris
1979	29 April	Montreal Lake, 10 mi. ne of town	dead wS snag	15	C D	W.C. Harris
1979	22 May	island, N. Sask. R. near Big Gully Ck	dead bPo		3 + Y	Hans de Vogel d o
1980	16 April	Cumberland House, 13 mi. sw	live bPo	14	C D	W.C. Harris
1980	05 June	P.A.N.P., s of Crean Lake	live tA	65	I	Merv Syroteuk p
1982	05 July	P.A.N.P., off Hwy 263 e of Kinowa Lake	live tA	20	1 + Y	Al Collingwood p
1983		Turtle Lake	dead tree			S.J. Shadick d
1983	21 June	Canoe Lake, s end	dead snag live bPo	13	2 + Y	W.C. Harris
1987	30 April	N. Saskatchewan River, n of Asquith	dead stub bPo	15	C	J.A. Wedgwood
	14 June				3 + Y	J.A. Wedgwood
1987	July	P.A.N.P. townsite		4F		p

\* First date given is the first observation for the year. Abbreviations used are P.A.N.P. - Prince Albert National Park, SMNH - Saskatchewan Museum of Natural History, SNHS - Saskatchewan Natural History Society, C - courting, D - digging or excavating, E - eggs, F - fledged young, I - incubating, R - regurgitating, S - specimen with brood patch, Y - young in or at nest hole.

a HOOPER, R. and D. HOOPER 1954. Birds of the Somme District. Yorkton Natural History Society.  
b SYMONS, R.D. 1967. Hours and the birds. Univ. of Toronto Press.  
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d SMITH, A. Saskatchewan bird atlas files. Unpublished, C.W.S., Saskatoon.  
e RANDALL, T.E. 1962. Birds of the Kazan Lake region, Saskatchewan. *Blue Jay* 20:60.  
f HOUSTON, C.S. and M.G. STREET 1959. Birds of the Saskatchewan River, Carlton to Cumberland. Sask. Natural History Soc. Spec. Publ. No. 2.  
g MAYSON, JEAN 1953. A new feathered friend. *Blue Jay* 11:6.  
h SEALY, S.G. 1970. Unpubl. ms. files, pers. corr.  
i SEALY, S.G. 1965. Unpubl. ms. files, pers. corr.  
j SASKATCHEWAN MUSEUM OF NATURAL HISTORY 1987. Records per P.C. JAMES, pers. comm.  
k CRUICKSHANK, ELIZABETH 1965. Summer meeting at Candle Lake. *Blue Jay* 23:154.  
l GUNN, JOYCE 1968. Pileated Woodpecker nest at Good Spirit Lake. *Blue Jay* 26:176.  
m SMITH, A.R. 1987. Pers. comm.  
n PRAIRIE NEST RECORDS SCHEME. per A. Smith  
o DeVOGEL, HANS 1979. Pileated Woodpeckers nesting on the North Saskatchewan River. *Blue Jay* 37:225.  
p SYROTEUK, M. 1987. Report to J.B. Gollop.



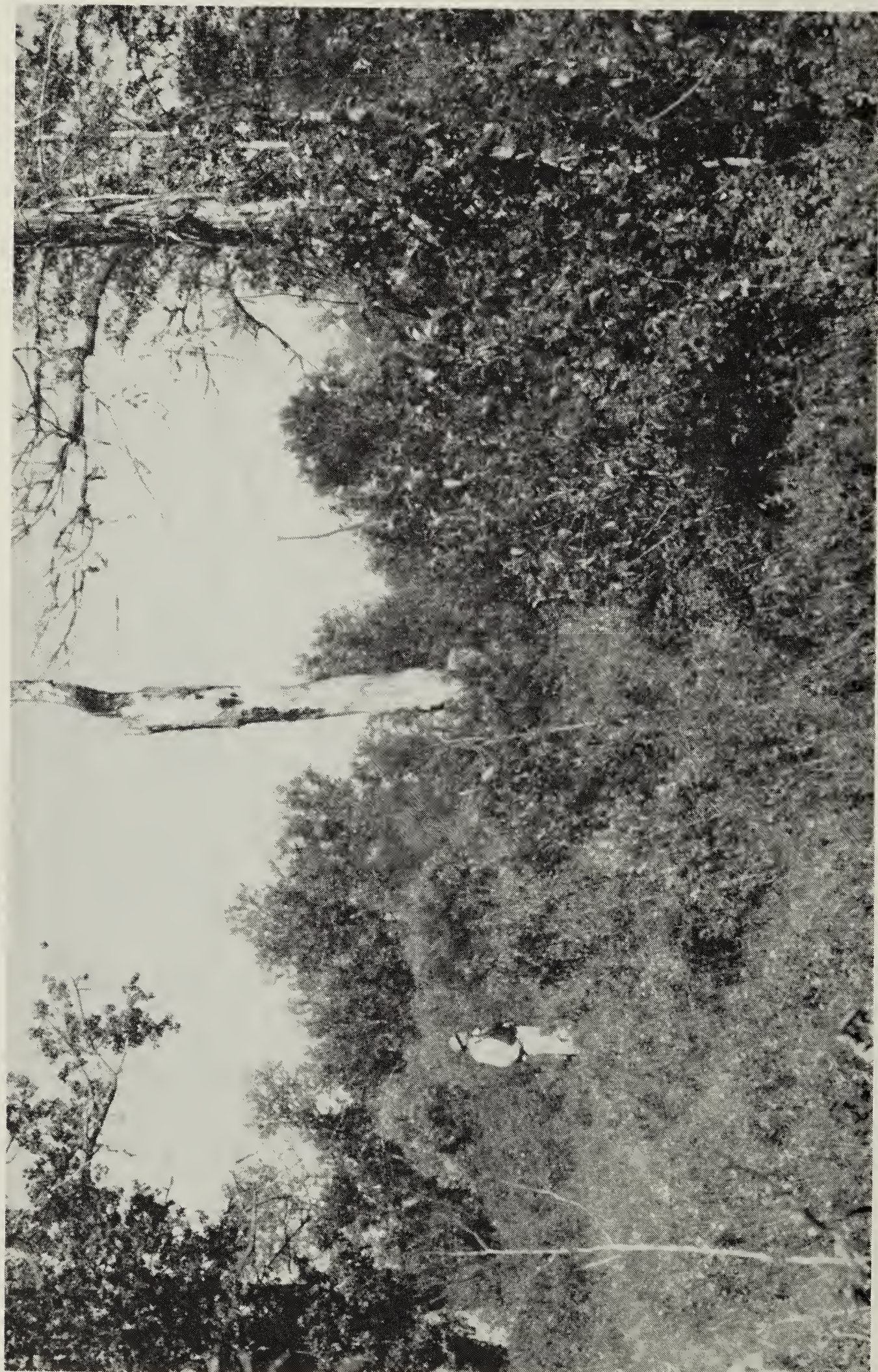


Figure 2. Black poplar snag with two nest holes (one beside and one above the small fire-scar)

Jim Slimmon



Scrutiny of the table suggested some patterns.

Apparent is the breeding birds' preference for snags of *Populus* tree species. Indicated, too, is a considerable variation in the height of the nest hole, from 6 to 65 feet. Although six courting and excavating observations were compressed into 5 days, 25-30 April, courting was seen all of 2 months earlier on 3 March. Was the cluster the result of peaking of woodpecker activity or of spring's flush of observers? Suggested by the data also is a reproduction rate of two to three nestlings per pair. But the major revelation is the importance to the species of large dead snags.

Additional details were available for a few of the observations. In one and possibly three instances the same snag was used more than once, and at two sites Pileateds were present for at least 2 years. A situation near water was noted four times. Possibly this was not a direct association, but rather resulted from the natural occurrence of large trees close to water. The woodpecker commonly digs its nest hole into the southeast quadrant of the tree; that orientation was remarked for three and the northwest for one of the reported cavities.<sup>2</sup>

Short described the three habitats for Pileated Woodpeckers as mixed deciduous-coniferous forests, deciduous forests and second-growth woods, wherever some large trees can be found.<sup>1</sup> Salt and Bent noted usual or preferred nesting sites were valley bottom lands, lowlands near water and swamp edges, always given some big, old trees.<sup>9 1</sup> Second-growth woods, valley bottom lands and lowlands near water are each descriptive of the unlikely-looking Asquith site.

Three of the six habitats can be found south of the provincial forests. They occur in the valley of the North Saskatchewan, along portions of the South Saskat-

chewan and other valleys, as well as in several parks. Pileateds have been reported a few times during spring and summer in the Saskatoon district (in valley bottom lands), in the Qu'Appelle Valley and in Moose Mountain Provincial Park.<sup>1 3 7 8 6</sup> Possibly these birds were local breeders and not the summer wanderers they were once presumed to be.<sup>3 8</sup> Although it is uncommon, we could expect to find this impressive woodpecker breeding in these places.

On a fall visit to the Pileated Woodpecker site I was sorry to find a gravel pit operation had started in the adjoining field. Just a narrow band of bush stood between gravel equipment and the nest stump.

**Acknowledgements**

Breeding records were provided by Wayne C. Harris, personal records; Paul C. James, Saskatchewan Museum of Natural History, Museum files,; Spéncer G. Sealy, unpublished manuscript; Alan R. Smith, Canadian Wildlife Service, Saskatchewan Bird Atlas files; Merv Syroteuk, Park Naturalist, Prince Albert National Park, staff records. Jim A. Slimmon provided photographs and J. Bernie Gollop, C.W.S., proffered advice and suggested references. Cliff A. Matthews commented on identification of trees and N. Pern Cordey provided *Blue Jay* current index files. I greatly appreciate the assistance provided by these people.

<sup>1</sup> BENT, A.C. 1964. Life histories of North American woodpeckers. Dover Publ. Inc., N.Y. 334 pp.

<sup>2</sup> BULL, E.L. 1987. Ecology of the Pileated Woodpecker in northeastern Oregon. *J. Wildl. Mgmt.* 51(2):472-481.

<sup>3</sup> CALLIN, E.M. 1980. Birds of the Qu'Appelle, 1857-1979. Sask. Natural Hist. Soc. Spec. Publ. No. 13. 168 pp.

<sup>4</sup> GODFREY, W.E. 1950. Birds of the Cypress Hills and Flotten Lake regions, Saskatchewan.



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- <sup>7</sup> HOUSTON, C.S. and M.I. HOUSTON 1986. Additions to Callin's birds of the Qu'Appelle. *Blue Jay* 44(2):70-84.
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- <sup>10</sup> SASKATOON NATURAL HISTORY SOCIETY n.d. Saskatoon field notes. Bird record file (unpubl.)
- <sup>11</sup> SHORT, L.L. 1982. Woodpeckers of the world. Delaware Mus. of Natural Hist. 676 pp.



*Pileated Woodpecker excavations in White Spruce, note squared holes.*

*G.J. Smith*



# FIRST DOCUMENTED NESTING RECORD AND STATUS OF THE WILLOW FLYCATCHER IN MANITOBA

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Until recently, the Willow Flycatcher and Alder Flycatcher were considered as western and eastern forms of the "Traill's Flycatcher. Extensive field studies by Stein identified consistent song, habitat and nest site differences between these forms and prompted the American Ornithologists' Union Checklist committee to recognize the existence of two distinct species.<sup>9 1</sup>

Alder and Willow flycatchers can only be reliably identified in the field by their vocalizations. The typical song of the Alder Flycatcher is a harsh, throaty *rrree-beep'* or *fee-bee;*, often shortened to *rreep*, with a rising inflection.<sup>13</sup> Alder's call is a rather low, flat *pip*, *peep* or *tip*; sometimes likened to the distant call of *Picoides* woodpeckers or the *kip* call of



*Willow Flycatcher on nest*

*Ken de Smet*



the Western Kingbird.<sup>9 13</sup> Taylor noted that adults occasionally utter an emphatic *bew*, similar to the ending of the Willow Flycatcher song.<sup>11</sup> The Willow Flycatcher's song, also harsh and throaty, is interpreted *fitz'-bew* or *vitz'-bew*.<sup>9 13</sup> Here the accents is more on the first syllable and the song seems to drop slightly in pitch. The typical call of the Willow is a dry *whit*, usually with a strong *wh* or *hw* sound.<sup>13</sup>

Morphological and habitat differences between the two species are less distinct. Willow Flycatchers tend to have a longer bill, shorter and more rounded wings and are slightly paler, with an olive-colored back that is more grayish or brown than that of the Alder Flycatcher.<sup>5 8 9</sup> The eye-rings of Willows average less conspicuous than those of Alders, but most Willows have at least a hint of a whitish eye-ring around the posterior one-half to one-third of the eye.<sup>13</sup> The Willow Flycatcher is typically found in riparian habitat in grassland areas, whereas the Alder Flycatcher prefers riparian edge habitat in wooded areas.<sup>2 9 15</sup> The Willow Flycatcher constructs a neat and compact "cottony" nest, whereas the Alder Flycatcher builds a bulky and more ragged nest.<sup>5 15</sup>

The Willow Flycatcher breeds from the southern extremes of Canada south to California, Texas and southwestern United States.<sup>1</sup> The Alder Flycatcher breeds north of this range from central Alaska and across the boreal forests of Canada south to central British Columbia, northern Michigan, New York, New England and into western Maryland.<sup>5</sup> The species' ranges overlap and sympatric populations have been recorded in British Columbia, Saskatchewan, Minnesota, Michigan, Wisconsin, Pennsylvania, Maryland and New York.<sup>3 15</sup> In Canada, the Willow Flycatcher has been reported during the breeding season in Nova Scotia, New Brunswick, southwestern Quebec and southern Ontario in the east and from southwestern

Manitoba to southern British Columbia in the west.<sup>5</sup>

Since Alder and Willow flycatchers were placed in separate species in 1973, the Willow Flycatcher has been recorded in only a few sites in southern Manitoba (Table 1). Examination of specimens in the National Museum of Canada by Wayne Neily (pers. comm.) also revealed a specimen from Oak Lake, Manitoba (an adult male; specimen No. 16881) collected on 8 August 1921 that, by coloration and application of Stein's formula of wing length versus bill length, was probably a Willow Flycatcher.<sup>9</sup> From 1978 to 1982 the species was recorded in five sites in southeastern Manitoba, but since then there has been only one record, probably a migrant, from the southeast (Table 1). Their status in southeastern Manitoba is probably occasional to rare. In southwestern and south central Manitoba, the Willow Flycatcher has been observed at ten sites since 1983 and would best be classified as uncommon. Although it was believed to breed in the province, nesting evidence for the Willow Flycatcher in Manitoba was lacking prior to 1987.<sup>7</sup>

Among the objectives of the Department of Natural Resources (DNR) prior to the 1987 field season was an attempt to find an active Willow Flycatcher nest. Other projects on rare and endangered species in southwestern Manitoba left little time and usually field work was in the wrong habitat for Willow Flycatchers. During June the species was found at two sites (Table 1). The Killarney site was checked where Willow and Alder flycatchers had occurred sympatrically in previous years, but only one silent adult flycatcher was located (Willow or Alder?). By late July singing activity had waned and other studies were being pursued.

During the early afternoon of 22 July a survey was made along the edge of an extensive grassland valley 14 km s of Mel



ita where Ferruginous Hawks had been seen. The aspen bluffs were being checked for large nests. At several sites, grassy coulees with scattered shrubbery extended from the valley into the surrounding fields. From one of these coulees (nw17-2-26-W1) came an unfamiliar *whit* call. The call was being uttered by a flycatcher. This bird was observed hawking insects and eventually flying into a hawthorn and chokecherry shrub patch. When it did not immediately come out, the shrub patch was checked and a neatly woven nest was found in a hawthorn. The nest was 1.5 m up the main stem and contained four nearly naked young.

The dry, open habitat was more suited to a Willow Flycatcher. An hour and a half was spent watching this bird feeding its young. During this time it frequently gave the *whit* call and occasionally snapped its bill rapidly or issued a chattering call when the nest was approached. The bird gave a minimal response to taped calls of either Willow or Alder flycatchers, but it did appear to respond slightly more to Willow Flycatcher calls. At the same time, an indistinct eye-ring was noted, two whitish wing bars, the sharp contrast between the white throat and grayish breast and sides and a grayish-green head, shoulder, back and tail color. A noticeable creamy-yellow colored wrist patch was puzzling since this was not noted in any of the field guides checked.

Another flycatcher was located less than 200 m from the original nest. Activity centered on a large hawthorn and Saskatoon clump. A nest was located 1.2 m up the main stem of a hawthorn shrub and it contained only one large young. This nest was photographed. More flycatcher activity was observed near a smaller hawthorn-Saskatoon clump about 25 m distant. A third nest was found 1.8 m up, on the outer branches of a hawthorn; it contained two large young and one addled egg.

That evening taped Willow and Alder flycatcher calls were played in the area. When the calls were played between the second and third nests an adult from the third nest became excited, frequently uttering *whit* calls. After several repeats of the Willow Flycatcher call this adult began to fly back and forth from clump to clump and eventually uttered a clear *fitz-bew*. Playback of several repetitions of the Alder Flycatcher call immediately after elicited no response. When the Willow Flycatcher call was resumed, the adult once again began responding with *whit* call notes.

That these were nesting Willow Flycatchers was reaffirmed when at 6:15 a.m. on 6 August at least four Willow Flycatchers were observed giving *fitz-bew* calls from perches near the nests. All nests were found to be empty; at the first nest an adult became excited at the intrusion, the second nest was also intact but the third nest was torn and may have been predated. The first nest was collected and submitted, with the addled egg that was collected earlier, to the Manitoba Museum of Man and Nature in Winnipeg.

All three of the nests were located in live hawthorn shrubs in patches of dense shrubbery. Nest materials consisted of grass and weed stems, with a cup of fine grasses, plant fibers and feathers. Two of the nests were neatly woven and compact with a fluffy external appearance (from the fluff of weed seeds). The nest that contained only one young was more open and untidy with less fluff. Clutch size in two of the nests corresponds to clutch sizes noted in North Dakota.<sup>10</sup> The third nest contained only one young but was within 1.5 m of a Gray Catbird nest containing four young. Catbirds have been known to destroy the eggs of other species.

Although the Willow Flycatcher is con-



Table 1. DETAILS OF WILLOW FLYCATCHER OBSERVATIONS IN MANITOBA.

<i>Date</i>	<i>Location</i>	<i>Habitat</i>	<i>Details</i>	<i>Observers</i>
06 July 1978 15 July 1978	Tobacco Creek, 2 km w, 9.5 km s Carman	willows in river bottom	1-2 heard & seen	Wayne Neily
03 June 1980	3 km e, 18 km n Portage la Prairie (w34-13-6-W1)	mixed shrubbery on edge of deciduous woodlot	1 heard & seen	Cal Cuthbert
09 June 1980	Birds Hill Park w end of loop	scattered second-growth trees and shrubs	1 heard & seen not seen later	Phil Horch
14 June 1980	1 km n Lundar growth oak and aspen	small woodlot; second incessantly	1 singing Ian Ward	George Holland,
3-5 June 1982	Oak Hammock W.M.A., near interpretation centre	small poplar, alder and willow bluff	1 heard & seen	George Holland, Peter Hamel, m. ob.
Mid June 1983	Souris R. (nw23-2-27-W1)	willows along river	several heard	Cal Cuthbert
29 June 1983	3 km e, 3 km s Melita	willow clump, shallow ravine	1 heard & seen	Cal Cuthbert
16 June 1984	4 km ne Melita, Hwy 83	mixed shrubbery, steep creek banks	1 heard	Gordon Grief
04 July 1984	3 km e, 3 km s Melita	willow clump in shallow ravine	2 heard & seen, pr?	Cal Cuthbert
27 May 1985	Pine Grove Halt, Hwy 1 e of Hadashville	mixed woods with some shrubbery	1 heard, migrant?	Norm Cleveland
15 June 1985	14.5 km s, 8 km e Killarney	mixed clumps of shrubbery on grassy ravine slopes	3 heard & seen; 2 + Alder Flycatchers	Ken De Smet, Wayne Neily
19 June 1985	2 km s, 1 km e Goodlands	chokecherry, saskatoon, ravine edge	1 heard & seen	Cal Cuthbert



late June 1985	3 km e, 3 km s Melita	willow clump in shallow ravine	2 heard & seen	Cal Cuthbert
07 June 1986	8 km w Hwy 21 on PR543	scattered aspen, willow in pasture	1 heard	Cal Cuthbert
25 June 1986	3 km e, 3 km s Melita	willow clump in shallow ravine	1 responded to tape	Cal Cuthbert
28 June 1986	14.5 km s, 8 km e Killarney	mixed clumps of shrubbery on grassy ravine slopes	1 responded to tape and others	Russell Tkachuk
09 June 1987	3 km n Dand (nw2-5-23-W1) saskatoon, grassy upland slope	scattered chokecherry, hawthorn, Mike Conrad	1 heard & seen	Ken De Smet,
25 June 1987	Gainsborough Creek (nw31-1-29-W1)	extensive river bottom shrubbery	1 heard Mike Conrad	Ken De Smet,
22 July 1987	14 km s Melita (nw17-2-26-W1)	scattered shrubbery on uplands along grassy coulee	3 N located	Ken De Smet, Mike Conrad
5 August 1987	5 km ne Dand (ne 12-5-23-W1)	scattered shrubbery on grassy upland slope	1 heard	Cal Cuthbert



sidered to be locally common throughout North Dakota and common near the Manitoba border in the Turtle Mountains and Pembina Hills, the Alder Flycatcher has rarely been recorded in the state and is considered a hypothetical breeder.<sup>10 14</sup> In Manitoba the converse is true. Willow Flycatchers occur sporadically in southwestern and south-central Manitoba, whereas the Alder Flycatcher is locally common throughout southern Manitoba including populations near the North Dakota boundary in the Turtle Mountains and in the extreme southwest.<sup>4 6</sup> Given the northward expansion of Willow Flycatcher populations in other parts of their range, however, the species may eventually become more common throughout much of southern Manitoba.

<sup>1</sup> AMERICAN ORNITHOLOGISTS' UNION 1973. Thirty-second supplement to the American Ornithologists' Union checklist of North American birds. *Auk* 90:411-419.

<sup>2</sup> BARLOW, J.C. and W.B. MCGILLIVRAY 1983. Foraging and habitat relationships of the sibling species Willow Flycatcher (*Empidonax traillii*) and Alder Flycatcher (*E. alnorum*) in southern Ontario. *Can. J. Zool.* 61:1510-1516.

<sup>3</sup> CALLIN, E.M. 1980. Birds of the Qu'Appelle, 1857-1979. Spec. Publ. No. 13, Sask. Nat. Hist. Soc., Regina, Sask.

<sup>4</sup> DE SMET, K.D. and C. SMITH 1979. Turtle Mountain resource inventory. Unpubl. rept., Manitoba Parks Branch and Dept. of Nat. Resources, Winnipeg. 193 pp.

<sup>5</sup> GODFREY, W.E. 1986. The birds of Canada, revised edition. Nat Mus. Canada, Ottawa, Ontario. 595 pp.

<sup>6</sup> KNAPTON, R.W. 1979. Birds of the Gainsborough-Lyleton region. Spec. Publ. No. 10, Sask. Nat. Hist. Soc., Regina, Sask.

<sup>7</sup> MANITOBA AVIAN RESEARCH COMMITTEE 1986. Field checklist of the birds of Manitoba. Man. Mus. of Man and Nature, Winnipeg.

<sup>8</sup> PHILLIPS, A.R., M.A. HOWE and W.E. LANYON 1966. Identification of the flycatchers of eastern North America, with special emphasis on the genus *Empidonax*. *Bird Banding* 37:153-171.

<sup>9</sup> STEIN, R.C. 1963. Isolating mechanisms between populations of Traill's Flycatchers. *Proc. Amer. Phil. Soc.* 107:21-50.

<sup>10</sup> STEWART, R.F. 1975. Breeding birds of North Dakota. Tri-College Center for Environ. Studies, Fargo, N.D.

<sup>11</sup> TAYLOR, P.T. 1983. Wings along the Winnipeg. Eco Series No. 2, Man. Natur. Soc. Winnipeg, Manitoba. 216 pp.

<sup>12</sup> TERRES, J.K. 1983. The Audubon Society Encyclopedia of North American birds. Alfred A. Knopf, N.Y. 1109 pp.

<sup>13</sup> WHITNEY, B. and K. KAUFMAN 1986. The *Empidonax* challenge. Part III: "Traill's" Flycatcher: the Alder/Willow problem. *Birding* 18(3):153-159.

<sup>14</sup> ZIMMER, K.J. 1979. A birder's guide to North Dakota. L & P Press, Denver, Colorado. 114 pp.

<sup>15</sup> ZINK, R.M. and B.A. FALL 1981. Breeding distribution, song and habitat of the Alder Flycatcher and Willow Flycatcher in Minnesota. *Loon* 53:208-214.



# LEAST FLYCATCHER LINES NEST WITH DRAGONFLY WINGS

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*Least Flycatcher on nest lined with dragonfly wings*

*J.V. Briskie*



Least Flycatchers build small, open-cup nests either in the upright crotches of sturdy trees, or less commonly, saddled on horizontal limbs. Constructed from a mixture of fine grasses and other plant materials, they are often woven together with spider webs and then lined with cotton, fine grasses, feathers or hair.<sup>2 4</sup> Occasionally, unusual materials such as tissue paper or other refuse may be used.<sup>1 6</sup> This paper describes a nest of the Least Flycatcher lined with the wings of dragonflies.

From 1984 to 1986 Least Flycatchers were studied in a high-density population that nests in the dune-ridge forest separating Lake Manitoba from Delta Marsh, Manitoba.<sup>5</sup> Over the three summers 406 nests of this species were examined.<sup>3</sup>

On 15 July 1986 a Least Flycatcher nest was located approximately 1.5 m high in a Sandbar Willow (*Salix interior*). The nest contained two eggs, indicating that laying began the previous day. The nest-shell was constructed mostly of fine grasses; however, unlike every other nest examined, this nest was lined with 14-16 dragonfly wings which formed two to three overlapping layers over the entire inside surface of the nest. On 17 July the fourth and final egg was laid. Only three eggs hatched on 30 July but all three nestlings fledged from 12-13 August. The lining of dragonfly wings was still intact when the nest was re-examined after fledging.

Although damselflies form a minor component of the diet of Least Flycatchers at Delta Marsh, dragonflies were never taken as prey.<sup>3</sup> However, numerous detached dragonfly wings were noticed on the pathways and road near this nest, presumably the result of predation by Eastern Kingbirds (S.G. Sealy, pers. comm.). It is possible that this Least Flycatcher salvaged some of these discarded wings when it was lining its nest.

Although these observations indicate the use of dragonfly wings was rare, this example illustrates that Least Flycatchers can be opportunistic when selecting nest materials from the resources available to them.

### Acknowledgements

I thank the staff of the University of Manitoba Field Station (Delta Marsh) for providing facilities during the course of my work on Least Flycatchers. The officers of the Portage Country Club allowed me to work on their property. Funding was provided by NSERC grant (A9556) to S.G. Sealy, and a University of Manitoba Graduate Fellowship, NSERC Postgraduate Scholarship and Manitoba Naturalists' Society Scholarship to the author. Dr. S.G. Sealy kindly reviewed an earlier version of this note. This paper is contribution Number 12 of the University of Manitoba Field Station (Delta Marsh).

<sup>1</sup> BANCROFT, J. 1982. Further observations of variations in bird nesting habits. *Blue Jay* 40(2):126-127.

<sup>2</sup> BENT A.C. 1942. Life histories of North American flycatchers, larks, swallows and their allies. U.S. Natl. Mus. Bull. 179.

<sup>3</sup> BRISKIE, J.V. 1985. Growth and parental feeding of Least Flycatchers in relation to brood size, hatching order and prey availability. M. Sc. thesis, University of Manitoba, Winnipeg.

<sup>4</sup> HARRISON, C. 1978. A field guide to the nests, eggs and nestlings of North American birds. Collins, London.

<sup>5</sup> MACKENZIE, D.I. 1982. The dune-ridge forest, Delta Marsh, Manitoba: overstory vegetation and soil patterns. *Can. Field-Nat.* 96:61-68.

<sup>6</sup> WALKINSHAW, L.H. 1966. Summer observations of the Least Flycatcher in Michigan. *Jack-Pine Warbler* 44:150-168.



# RED-BREASTED NUTHATCHES NEST AT BRANDON, MANITOBA

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Two Red-breasted Nuthatches spent the winter of 1987-1988 in or close to the yard of my next-door neighbors Mr. and Mrs. B.A. Robinson. There is a shelterbelt of at least 30 mature spruce and pine trees on that property and Mrs. Robinson operates a bird-feeding station.

On 15 April 1988 a Red-breasted Nuthatch was heard tapping on the trunk of an old Manitoba Maple on the boulevard. The top of this tree had broken off in a windstorm a few years ago. The following day two nuthatches were seen there, one starting to make a cavity, the other nearby. The two birds appeared to take turns working and were seen as early as

7 a.m. and as late as 8:45 p.m. They started three holes. On 30 April a nuthatch was seen working at the middle hole about 5 m from the ground; here the nesting was carried on. By 6 May wood chips about dime-sized were being thrown out. Notes for 10 May include "Not – excavating."

On 11 May the nuthatches were seen mating. During the nesting period trips were made to a nearby pine tree for resin which was taken to the nest tree and put on the bark around the nest hole. This area glistened in the sunlight.

Around 29 May the adults were seen



*Red-breasted Nuthatch at nest at Indian Head, Saskatchewan*

*Lorne Scott*



carrying food. They made many trips with food, into the hole and out, and later passed food to the nestlings from the edge of the hole. They were also observed taking away fecal sacs.

On 17 June two open mouths appeared at the opening and later in the afternoon two heads. In the evening there were nuthatch sounds near the nest tree. Two young birds were seen out of the nest, another was being fed at the hole. It would appear that the latter soon left since the following morning a smaller bird was being fed there by the male adult. The other

birds were not seen. The male continued coming with food, being last seen at the nest tree in the morning of 19 June.

After activity ceased at the nest tree, Red-breasted Nuthatch calls were heard regularly in the neighborhood, with occasional sightings. On 30 June four of the birds were observed at a bird bath in the yard.

Through a period of extremely hot and dry weather the pair of Red-breasted Nuthatches proved to be diligent and faithful parents.

## CAROLINA WREN AT LETHBRIDGE, ALBERTA

TERESA M. DOLMAN, 37 Carleton Road W., Lethbridge, Alberta. T1K 3X4

At 6:15 a.m. on 21 August 1987, Doug Dolman and the author heard a bird singing very loudly outside the window, and it was not a "regular." The bird was soon located sitting on the porch steps. Before it flew, its wren-like appearance was noted. With binoculars, the bird was observed in the back yard, still singing, but this time giving a different call. It was rummaging around the compost bin and under a large squash plant. From there it flew again, to land in a tree about 8 m distant and again it sang. Although the sun had barely risen, the sky was clear and viewing conditions good. The bird was larger than a House Wren and had a conspicuous white line over the eye and a solid rufous brown back. When it flew away the

field guides were consulted. By appearance, it best fit the description of either the Carolina or the Bewick's wren, and by song, the Carolina Wren. We had neither seen nor heard these two birds before. The neighbourhood was later searched with the hope of hearing the wren without luck.

At 12:15 p.m. the wren was again heard. A recording of the Carolina Wren song was then played on a borrowed copy of the National Geographic bird sound records. The wren was located on the property-line fence; it was agitated, scolding constantly and cocking its tail. This scolding was recorded on a portable tape recorder. At a second playback of the Carolina Wren song it flew to the sundeck



railing, within 2 m of the open door, then flushed to a rooftop and then to some trees. With binoculars the above-noted features were again seen, plus the underside of the tail, which was finely barred with dark brown, without any white or buff spots. The throat was white and the breast whitish with cinnamon-coloured patches at the shoulders and flanks. There was no streaking on the breast. The beak was long and slightly decurved. The wren flew off shortly, out of recording range, although it continued to sing occasionally. A few hours later I listened to a tape recording of the Bewick's Wren song, and it was entirely different from the calls given by this bird.

At 7:00 a.m. on 22 August the wren was again singing; the "tea-kettle, tea-kettle, tea-kettle" call of the Carolina Wren, as described by Armistead, was recorded.<sup>1</sup> The National Geographic record was played and once more the wren flew to the sundeck railing. Several times during that day it was heard singing the call described above or giving a loud descending *churr* note which also was recorded. It returned at least once more to investigate the compost bin and the last time it was heard was about 7:00 p.m.

The wren was identified as a Carolina

Wren on the evidence that:

- a) it fit the physical description of that species
- b) it was very vocal (Armistead states that songs and calls are given all year<sup>1</sup>)
- c) its songs and calls conformed to that of the Carolina Wren
- d) it was attracted by the recorded songs and calls of a Carolina Wren.

The non-migratory range of the Carolina Wren extends in the United States from southeastern Nebraska east to southeastern Massachusetts and south through central and coastal Texas to northeastern Mexico, the Gulf Coast and southern Florida. In Canada it is a permanent resident only in southern Ontario, and rare, casual wanderers have been recorded as far west as southern Manitoba.<sup>2</sup> Southern Alberta is therefore very much out of its normal range, and one can only guess at the circumstances which brought the bird here. It appeared to be in excellent physical condition and did not appear to be keeping the company of any other birds.

<sup>1</sup> ARMISTEAD, H.T. 1983. Carolina Wren. In Audubon Society Master Guide to Birding, J. Farrand, Jr., Ed. Knopf, New York.

<sup>2</sup> GODFREY, W.E. 1986. The birds of Canada. National Mus. of Natural Sciences, Ottawa.



# CAPE MAY WARBLER IN MANITOBA IN DECEMBER

PETER TAYLOR, P.O. Box 597, Pinawa, Manitoba. R0E 1L0

On 11 December 1987 Doreen Dick reported an unusual bird that had been visiting her feeder at Seven Sisters, Manitoba for about 2 weeks. Her detailed description suggested Cape May Warbler and this was confirmed on 12 December when the bird was watched for a few minutes from about 20 m, using 7x binoculars. Time constraints did not permit closer observation and the bird could not be located the following day, nor was it seen again.

Identification was based on the following field marks. The breast and belly were a fairly bright golden yellow, but the under-tail coverts were whitish. The yellow extended up from the breast to a patch behind the cheeks; there was a slight rusty tinge in the cheeks themselves. The entire breast was strongly streaked with dusky, extending into long stripes on the flanks. The upper parts were mainly greenish brown; the only strongly contrasting marking was a diffuse yellow-green patch on the rump, visible when the bird hovered near the feeder. The wing bars were indistinct. Doreen Dick also noted that the bill and legs were dark, and there were a few white spots in the tail.

This description differs in detail from all illustrations in the commonly used field guides; the combination of fairly bright yellow breast and indistinct wing-bars suggests an immature male in transitional plumage. All other warblers with yellow rump and streaked breast (Magnolia, Palm and Yellow-rumped) are eliminated by the other details.

This appears to be the first December record of a warbler in Manitoba. Any warbler other than the Yellow-rumped is a

rare sight after mid-October, and even that comparatively hardy species is not often seen in November. The following records, however, reveal a pattern of individual Cape Mays lingering until late fall, and visiting feeders.

A dingy-plumaged immature visited Bea and Bill Mathers' feeder in Pinawa from late October to 12 November 1980 (see photograph).<sup>6</sup> Another was seen at Victoria Beach on 1 November 1986 by a large party of birders including G.D. Grief, R.W. Knapton, R.F. Koes, R. Parsons, M. Siepmann and R. Tkachuk (pers. comm.).<sup>2</sup> Both these birds fed on suet. Not quite so late in the year, Warren Johnston and Gordon Smith saw a Cape May eating suet at a Seven Sisters feeder on 19 October 1963; it was not seen the following day.<sup>3</sup> Rudolf Koes saw an immature feeding on a cankerworm moth in East Kildonan, Winnipeg, on 24 October 1983 (pers. comm.).

The survival of such a delicate bird as a warbler until mid-December 1987 resulted from an unusually mild and snow-free period in November and early December. The bird disappeared after the first lasting snowfall of the winter, which came on 10-12 December. During its visits to the feeder it seemed to be in good condition. Dick saw it drive away Black-capped Chickadees and White-breasted Nuthatches, not just from the feeder but right out of the tree. It was active when seen by the author, but it probably succumbed to the cold that night. When Dick first saw the warbler, it was feeding on suet attached to a tree, but it later took crumbs and sunflower-seed debris from a more sheltered bird-table.





Cape May Warbler feeding on suet in Pinawa, Manitoba, 2 November 1980 P. Taylor

The main winter range of the Cape May Warbler is in the West Indies and southern Florida.<sup>1</sup> It has been recorded casually in winter in southern California, southern Arizona, and the central and eastern United States.<sup>1</sup> A survey of seasonal reports in *American Birds* since 1977 shows that the Manitoba records constitute the northwestern extreme of a

broad pattern of lingering Cape Mays. Individuals have stayed until December as far north as Minnesota and Ontario (Table 1). Many of these birds were regular feeder visitors, with suet often the food of choice. Reports of successful overwintering (at least to the end of February) extend north to Illinois, Indiana, Pennsylvania and West Virginia (Table 1).<sup>4</sup> A wintering

Table 1. LATE OR OVERWINTERING CAPE MAY WARBLERS IN CANADA AND THE NORTHERN UNITED STATES\*

State or Province	Last Date	Reference - <i>American Birds</i>
Minnesota	27 December 1982	1983, 37(3):305
Wisconsin	23 December 1984	1985, 39(2):170
Michigan	7 January 1980	1980, 34(3):276
Indiana	27 February 1980	1980, 34(3):279
Illinois	2 March 1983	1983, 37(3):308
Pennsylvania	29 February 1980	1980, 34(3):273
Ontario	4 December 1982	1983, 37(3):298
Nova Scotia	13 December 1983	1984, 38(3):295

\* Not a comprehensive compilation



bird at Denver, Colorado in 1985-1986 attracted a lot of attention from the news media.<sup>5</sup>

It is curious that this species of warbler shows such a propensity for using suet feeders when lingering north of its usual winter range. Only a few other warblers (Orange-crowned, Pine, Tennessee, Townsend's, Yellow-rumped and Yellow-throated) are indicated by Terres to be regular feeder users.<sup>7</sup> Of these six species, all but the Tennessee winter in fair numbers in mild regions of the United States so their use of feeders is not unexpected.

Thanks go to R. F. Koes for information on the 1963, 1983 and 1986 sightings and for helpful comments on the manuscript.

<sup>1</sup> AMERICAN ORNITHOLOGISTS' UNION 1983. Check-list of North American birds.

Sixth. ed. pp. 609-610.

<sup>2</sup> HARRIS, W.C. 1987. The autumn Migration: Prairie Provinces region. *Am. Birds* 41:105.

<sup>3</sup> HOSFORD, H. 1963. Wild wings, Winnipeg Tribune. 28 October 1963.

<sup>4</sup> HURLEY, G. and T. HURLEY 1982. Wintering Cape May Warbler [in West Virginia]. *Redstart* 49:98.

<sup>5</sup> KINGERY, H.E. 1986. The winter season: mountain west region. *Am. Birds* 40:309.

<sup>6</sup> TAYLOR, P. 1983. Wings along the Winnipeg: the birds of the Pinawa - Lac du Bonnet region, Manitoba. Eco Series No. 2, Man. Nat. Soc., Winnipeg. pp 159-160.

<sup>7</sup> TERRES, J.K. 1980. The Audubon Society Encyclopedia of North American birds. Alfred A. Knopf, New. York.

## CHRISTMAS BIRD AND MAMMAL COUNTS - 1988

The count period is from 16 December 1988 to 3 January 1989, inclusive. Count area should be a circle 24 km (15 mi) in diameter and counts must be a minimum of 3 hours in duration. Count forms will be mailed to compilers of counts in 1987. Anyone else wishing to do a count should request a form from:

**Wayne C. Harris**

**Box 414**

**Raymore, Saskatchewan. S0A 3J0**

Reports of counts should sent to Wayne as soon as possible after the count. To be included in the compilation in the March Blue Jay the reports must reach Wayne by 10 January 1989 at the latest.



## BLACK-FOOTED FERRET SEARCH

Although the 1978 Committee on the Status of Endangered Wildlife in Canada formally designated the Black-footed Ferret as extirpated in Canada, there have been several unconfirmed ferret sightings in the prairie provinces. Currently the Canadian Wildlife Service and the provincial Wildlife Branch are soliciting reports of

ferret sightings. An informative brochure has been produced by Environment Canada and World Wildlife Fund Canada. For more information and to report sightings contact either of the following: **Roger Edwards, Canadian Wildlife Service, Second Floor, 4999-98 Avenue, Edmonton, Alberta, T6B 2X3**, telephone 403-468-8928 or **Dale Hjertaas, Wildlife Branch, SPRC, 3211 Albert Street, Regina, Saskatchewan, S4S 5W6**, telephone 306-787-2892.



*Photo by LuRay Parker © 1985 Wyoming Game and Fish Department*



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# NATURE LIBRARY

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## TREASURY OF NORTH AMERICAN BIRDLORE

PAUL S. ERIKSSON and ALAN PISTORIUS, editors. 1987. Paul S. Eriksson, Middlebury, Vermont. 18 b-a-w plates. 386 pp. \$24.95

Like most anthologies, the *Treasury of North American Birdlore* contains such a range of material that no single reader is likely to enjoy every selection. And, of course, while sampling a little of this and a little of that, an anthology cannot exhaust any particular subject. The intent of the *Treasury* is merely to sample popular North American bird literature over the past four centuries. The result is a fair bedside reader, more entertaining than informing, and perhaps a little thin on conservation.

Initially published in 1962, this updated edition of the *Treasury* offers thirty new selections gleaned from current popular bird literature. The remaining fifty-plus selections have been carried over from the first edition and are, for the most part, unchanged.

For sheer entertainment, nothing in the collection reads better than the pieces by George Miksch Sutton — all three of which appeared in the first edition. His account of an early trip to Churchill, Manitoba to record for science the first Harris Sparrow nest is among the best writing in the *Treasury*, and particularly interesting to Canadians. The remaining two selections from Sutton are amusing boyhood

stories: one describing the incredible antics of two pet roadrunners; the other, a nightmarish but hilarious encounter he had with hundreds of daddy longlegs, a nest of mice and a brooding Turkey Vulture — all while stuck in a hollow log. Sutton, unlike many of the other writers in this anthology, never takes himself too seriously.

Several of the *Treasury's* better selections are taken from narrative works where the author attempts to reveal the intimate life of an individual bird. David Rains Wallace's cuckoo fledgling (from *Idle weeds: the life of a sandstone ridge*) and Sally Carighars's Trumpeter Swan family (from *One day at Teton Marsh*) are vividly brought to life in a manner that mere scientific reporting cannot achieve. A segment out of Fred Bodsworth's *Last of the Curlews* would have added a lot to this anthology's sampling from the genre. Similarly, it is unfortunate that the editors' only selection from all of Ernest Thompson Seton's nature writing is a rather dry letter he wrote to the *Auk* on the subject of popular bird nomenclature.

Despite several well chosen examples of North American bird literature, the *Treasury* suffers from the inclusion of a few too many selections from the John Burroughs school of inspirational nature writing. In the book's introduction, the editors attempt to persuade readers of the value of this anthropomorphizing "twaddle," saying modern audiences are too quick to scoff at a man who leads with the heart. They may be right, and a few read-



ers may be interested in sentimental bird writing as literary/ornithological history, but many will simply tire of it by the time they have finished the second Burroughs essay — a diatribe against that blood-thirsty scoundrel, the Northern Shrike.

As can be expected in a book covering 400 years of bird literature, many of the authors' attitudes, observations and assumptions appear quaint or even dangerous to a modern reader. Unfortunately, the 30 new selections do little to demonstrate how far ornithology and conservation have advanced in the 25 years since the *Treasury* was first published.

Like far too many books, this one leaves conservation to the last, with a single concluding chapter of essays. Most of the selections deal with bird protection, not habitat conservation, and recount the market-gunning, hawk slaughter, and egret-pluming of yesteryear. After registering a degree of shock over these bygone atrocities, the reader could simply close the book, feeling moral and righteous, were it not for the final essay, Christopher Leahy's list of "Man-made threats to bird-life" (placed like an afterthought of bad news out of place in a celebration of birds). This selection reminds us of the current crisis for North American birds, but it is the only one that does so.

In the introduction the editors explain that "contemporary scientific ornithology is under-represented in this volume . . . because that literature is largely inaccessible to the intelligent non-scientist and few practitioners attempt to translate their work for general consumption." A brief glance at the Blue Jay Bookshop's list of current bird books will refute this peculiar statement. A second glance will turn up books page for page more worthy of purchase than this disappointing anthology. — Reviewed by *Trevor Herriot*, 2963 Argyle Street, Regina, Saskatchewan. S4S 2B1

## TALES OF A LOW RENT BIRDER

PETE DUNNE; drawings by DAVID SIBLEY. 1986. Rutgers University Press, New Brunswick, NJ. 175 pp. hardcover \$15.95 US

This book is a series of 19 short stories originally published as part of a series in a newspaper. The average length of each story is about eight pages and a great variety is offered. The author is obviously attracted to raptors as this group of birds is the most frequently written about, but there are stories about shearwaters and ducks and even "the death of a season." The area most frequently written about is the eastern United States, in particular the Cape May Bird observatory in New Jersey where the author works.

Although the stories are as one would expect of personal reflections on happenings in the author's life, they nonetheless are interesting. In addition there are little bonuses to be gleaned from the book. An example is the characteristics used to identify migrating shorebirds during the fall from an aircraft - and you thought they were tough from the ground with a spotting scope - can you imagine identifying them without binoculars from a vehicle moving at 80 miles per hour.

I found the book interesting and relaxing reading. Although I feel the book is overpriced for its content and size, it may be worth the cost if you enjoy short stories and light humor. A lower priced soft cover would have been much more — appropriate. — Reviewed by *Wayne C. Harris*, Box 414, Raymore, Saskatchewan. S0A 3J0



# EAGLES OF NORTH AMERICA

CANDACE SAVAGE. 1987. WESTERN Producer Prairie Books, Saskatoon, Saskatchewan. 127 pp. Hardcover \$24.95.

*Eagles of North America* is Candace Savage's fourth natural history book. Its concise, informative text and excellent photographs combine to give the reader a solid introduction to the biology of the two eagle species known to breed in North America — the Bald Eagle and the Golden Eagle.

The 12-page introduction constitutes the text. It includes a page of maps that show the breeding ranges and winter ranges of both species. The text is balanced and generally well-written. It is also wide-ranging, touching on eagle symbolism in mythology, religion and politics, on the vagueness of the term "eagle" in taxonomy, the birds' hunting equipment and soaring flight, field marks, range and habitat preferences, food and feeding behaviour, migration and sociability, flight displays, nesting cycle and fratricide among nestlings, reproductive success, decline in numbers, and prospects for the future. On this last subject the author is guardedly optimistic. She delivers the message that bears a million repetitions, namely that the eagles' welfare is linked to our own.

"The environment does not merely surround us: it is us," she writes. "If other living things are being harmed, we are as well. Eagles remind us of our vital connections."

Savage also raises a few questions that have intrigued eagle-watchers and researchers for years. Why do the Florida Bald Eagles nest in November and December and then migrate north in the summer, contrary to the practice not only of other Bald Eagle populations but of birds in general? At congregations of Bald Eagles, such as in Alaska's Chilkat Valley

in autumn, do mates accompany each other? Do young birds follow their parents? Are new pairs being formed?

In terms of sheer space, however, the book's *raison d'être* lies in its photographs, which occupy 98 pages against the text's 12. There are 92 photos in all, including the two on the covers, and they represent work from 24 photographers. Of the 92 photographs, 68 are of Bald Eagles, 23 of Golden Eagles and one of Steller's Sea-Eagle. The caption for this last states that Steller's Sea Eagle and the White-headed Sea Eagle are occasional visitors to North America, when in fact the *White-tailed* Eagle is a regular visitor and Steller's Sea-Eagle is casual in western Alaska, with only one recent record.

The photos are, with only one exception, uniformly excellent, both in terms of content and in printing quality. As C. Stuart Houston points out in the Foreword, a reader's appreciation for the photographer's work here is heightened with knowledge of the remote and often difficult-of-access terrain and nesting sites that eagles favour. Along with photos of the birds nesting, feeding, squabbling, hunting and loafing, there are several of birds on the wing — particularly praiseworthy photographic accomplishments, and here brought off to great effect. A comic two photo sequence shows a young Bald Eagle, watched by an adult, coming in for a landing on the ground and then achieving that landing as feet, bill and outstretched left wing strike earth simultaneously.

The photos constitute a splendid collection, but there are at least two mistakes in the captions in addition to the one mentioned above. The first is an error of omission. The caption for a cliff-face eyrie photo showing a young Bald Eagle states only that "Either species may nest on cliffs, though it is more common for Golden Eagles to do so" — without naming the species in the photo. The other mistake



is more categorical. The caption for a photo showing a young Bald Eagle caught in the entrails of a road-killed deer identifies the bird as a Golden Eagle.

The bibliography lists 63 well-chosen references by 58 authors. The index lists subjects, species and proper names and refers the reader both to relevant text pages and photo pages. However, because index entries are geared strictly to caption content rather than photo content, the index is arguably incomplete. A spectacular shot of a young Golden Eagle, for

instance, in its cliff-side nest is indexed under "Sub-adult," the key word of the caption, but not under "Nesting sites."

These cavils aside, the book remains an attractive and informative introduction to two magnificent species. Even those readers for whom the text is perhaps too basic will derive much enjoyment from the photographs. They are aesthetically pleasing as well as descriptive. — Reviewed by *Bob Kohlmeier*, R.R. 5, G.B. 75, Saskatoon, Saskatchewan. S7K 3J8

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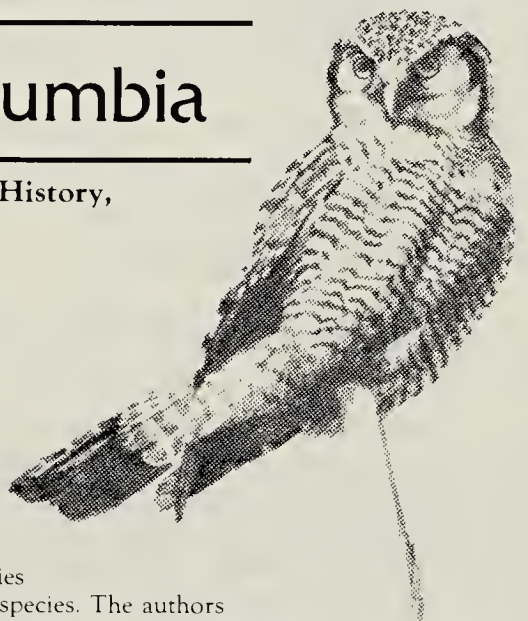
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# LETTERS

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The following thought-provoking letter has been reprinted from the May/June 1988 issue of *Western Canada Outdoors*.

Dear Editor: Where I hunt, there are wolves. Beyond a doubt they do better than me. But they don't hurt my hunting. They're there for the same reason I am; there's lots of game. Each winter I fill my freezer.

Now I read that the Alberta Fish and Game Association is starting a new program to reduce wolves. This program will take up a lot of time, energy and donated dollars. It will get lots of media attention. It will make some hunters believe that at last something is being done to improve the hunting in this province.

Bad news, boys. You're dead wrong.

So many hunters pour into the Ram River country, the Brazeau and the Willmore each fall that their horses turn bunchgrass meadows, critical elk winter range, into bowling greens — and when the elk disappear, suddenly we are told that we have a wolf epidemic. The Alberta Forest Service guards forests from fires so well that grassy clearings grow up to inedible swamp birch: another wolf infestation!

Dozens of logging, oil, gas and coal companies cut roads into every isolated corner of the foothills, opening them up to hunting, poaching and native harvest.

The elk and other game start to disappear; too many wolves, obviously.

**Come on guys!** While you're out there tilting at windmills, the whole back forty is burning down!

There are lots of wolves in the foothills, and they eat lots of animals. As long as there is good, healthy habitat, there will be lots of animals for them to eat. **But without the habitat, there will be no wolves. There will also be no game.**

When I look at the fact that one dam alone, on the Oldman River, will forever eliminate 350 head of mule deer, I find it hard to get worked up about wolves. When I see Shell Canada bulldozing the winter range of forty bighorn sheep on Prairie Bluff — range that can never be reclaimed — I get a little impatient with frustrated hunters who would rather poison wolves than mail back a credit card or write a letter to an MLA.

I hope the AFGA gets some kind of lasting satisfaction out of dead wolves, **because the real battles are being lost for lack of support by the group of people who have the most at stake.**

**Wolves are not the problem.** Wildlife management by placebo is the problem — and short-sighted, narrow-minded hunters are a big part of the cause.

Kevin Van Tighem





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